EXHIBIT L

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE

STATE OF CALIFORNIA

Application of Southern California Edison Company (U338E) for Authority to Establish Its Authorized Cost of Capital for Utility Operations for 2020 and to Partially Reset the Annual Cost of Capital Adjustment Mechanism	)	Application 19-04-014
And Related Matters.	)	Application 19-04-015 Application 19-04-017 Application 19-04-018

OPENING BRIEF OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E)

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Pursuant to Rule 13.11 of the Rules of Practice and Procedure of the California Public Utilities Commission ("CPUC" or "Commission") and the Assigned Commissioner's Scoping Memo and Ruling, issued June 2, 2019, Southern California Edison Company ("SCE") submits its Opening Brief in support of its request to set a 2020 cost of capital as set forth in Application (A.) 19-04-014 and as modified by its Supplemental Testimony.[1]

I. INTRODUCTION AND SUMMARY OF RECOMMENDATIONS

A. SCE Recommends an Overall Rate of Return of 8.28 Percent and a Return on Common Equity of 11.45 Percent

SCE's most recent comprehensive cost of capital proceeding was in 2012. Since that proceeding, the risks SCE faces compared to its peer companies have increased substantially.

[1] Exhibit SCE-01-A.

Most significantly, SCE has seen dramatic risk increases related to severe wildfires in California and associated utility liability due to the legal doctrine of inverse condemnation, a risk unique to California. Although wildfire risk has dominated the recent discussion of California electric utility company risks, California's energy industry transformation also creates significant risks for SCE's investors.

To compensate investors for these increased risks, SCE recommends an overall rate of return ("ROR") of 8.28 percent for test year 2020. This ROR reflects a proposed return on common equity ("ROE") of 11.45 percent, a proposed cost of long-term debt of 4.74%, and a proposed cost of preferred equity of 5.70 percent. The requested ROR assumes changes to SCE's capital structure to reduce SCE's levels of preferred equity from 9 percent to 5 percent, increasing SCE's common equity from 48 to 52 percent and leaving SCE's long-term debt at 43 percent. SCE's recommended Cost of Capital by component, percentage, cost, weighted cost, and overall cost for 2020 is shown in Figure I-1.

Figure I-1

2020 Recommended Cost of Capital for SCE

Component	Percentage	Cost	Weighted Cost
Long-Term Debt	43.0%	4.74%	2.04%
Preferred Equity	5.0%	5.70%	0.29%
Common Equity	52.0%	11.45%	5.95%
Total	**100.0%**		**8.28%**

B. Key Considerations for the Commission in Setting a Fair and Reasonable ROE for SCE

- Since the last Cost of Capital proceeding in 2012, when the Commission authorized a ROE of 10.45 percent for SCE,[2] the risks SCE faces compared to its peer companies have increased significantly.
- SCE has experienced multiple credit rating downgrades and an increased cost of capital because of severe wildfires in California and the uncertainty of cost recovery. These credit ratings indicate that investors view SCE to be more risky than utilities outside of California and more risky than during the last Cost of Capital case. A ROE that fairly compensates investors for these risks is necessary to help SCE improve its credit ratings, attract capital at reasonable costs, and ensure that SCE has the ability to provide reliable electric service at just and reasonable rates.
- AB 1054 has mitigated but not eliminated the risks associated with wildfires. Residual risk for investors remains, particularly surrounding the implementation of AB 1054's new reasonableness standard for cost recovery. Significantly, although SCE's credit rating metrics have stabilized since the passage of AB 1054, SCE's credit ratings have not been upgraded.
- California's ambitious clean energy and electric transformation goals also create increased risks for SCE, particularly operational and cost-shifting risks given the changes in the competitive environment and generation technology. Credit rating agencies have taken note of these risks, as has the Commission. SCE and its shareholders support California's ambitious public policy initiatives. A fair and reasonable rate of return, however, is necessary for SCE to be able to attract capital for projects that will benefit the public.
- SCE's financial ROE models, its evaluation of the asymmetric risk that wildfires pose, and the qualitative factors concerning SCE's risks firmly support an overall ROE of 11.45 percent. Intervenors' financial models, on the other hand, are flawed and

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[2] *See* D.12-12-034, p. 3. In D.17-07-005, the Commission granted a joint petition for modification and modified SCE's ROE to 10.30 percent.

produce unreliable results. Intervenors' ROE recommendations are *below* the national average, which exposes their downward bias. The objective evidence demonstrates SCE is more, not less, risky than peer utilities nationwide.

- SCE's request to increase its common equity percentage from 48 percent to 52 percent is a critical part of SCE's goal to improve its credit ratings and reduce its overall risk. SCE's requested common equity level of 52 percent will bring it to the same level as the other California utilities and within the nationwide average. Authorizing this change will send a signal to equity and debt investors that the State supports SCE's financial health and a financially sound electric utility supports the State's policy objectives.

C. Summary of SCE's Recommendations

The United States Supreme Court's decisions in *Hope* and *Bluefield*[3] establish that a public utility is entitled to earn a return on invested capital that maintains and ensures confidence in its financial soundness and integrity, attracts necessary capital, and fairly compensates investors for their risks. SCE has shown its recommended overall ROE of 11.45 percent and its requested capital structure changes are necessary to satisfy the *Hope* and *Bluefield* standards and enable SCE to improve its financial condition and credit rating metrics. As the Commission has long recognized, a strong investment grade credit rating benefits SCE and its customers because it allows the utility to attract capital at reasonable costs ensuring the ability to provide reliable electric service at just and reasonable rates.[4]

In support of its Application, SCE has submitted the results of three standard financial models that the Commission has accepted and used in prior Cost of Capital proceedings to establish a fair and reasonable ROE: the Capital Asset Pricing Model ("CAPM"); the Discounted Cash Flow model ("DCF"); and the Risk Premium Model ("RPM"). SCE's assumptions, inputs,

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[3] *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) ("Hope") and *Bluefield Water Works & Improvement Co. v. Public Service Comm'n of the State of Virginia*, 262 U.S. 679 (1923) ("Bluefield").

[4] D.12-12-034, p. 29.

and adjustments to the models are based on unbiased third-party economic forecasts, accepted financial principles, and expert judgment. The results, which firmly support a base ROE of 10.60, provide the Commission with an accurate and credible starting point for setting a ROE commensurate with SCE's risks.

SCE's recommended ROE also accounts for the fact that although standard financial models capture certain business, financial, and regulatory risks that investors consider when deciding whether to invest in SCE, SCE's risks are higher than the average utility nationwide. SCE's recommendation that the Commission authorize a ROE at the high end of the financial model range reflects that California utilities are subject to ongoing risks from transformative public policies requiring unprecedented infrastructure investment.[5]

As the Commission has recognized repeatedly, however, the financial models are just a starting point in setting a fair and reasonable ROE. SCE also faces increased and asymmetric risks due to the frequency and increasing severity of California wildfires coupled with California's unique application of inverse condemnation to privately-owned utilities regardless of fault. The financial models do not capture these unique California risks; therefore, the Commission must incorporate these risks when it authorizes SCE's ROE. Even with the passage of AB 1054, credit rating agencies perceive California utilities to be a riskier investment than utilities outside of California for several reasons, including the continued existence of inverse condemnation and the uncertainty surrounding the implementation of AB 1054.[6]

Four intervenors, the Commission's Public Advocates Office ("Cal Advocates"), Energy Producers & Users Coalition/Indicated Shippers/The Utility Reform Network (together, "Joint Intervenors"), Environmental Defense Fund ("EDF"), and Federal Executive Agencies ("FEA")

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[5] Exhibit SCE-01 (Stern), pp. 9-16, 18-32; Exhibit SCE-04 (Stern Rebuttal), pp. 5-8; SCE, Stern, Tr. Vol. 1/127-131; SCE, Stern, Tr. Vol. 2/167-74.

[6] *See* Exhibits SCE-15, SCE-16, and SCE-17.

submitted testimony addressing SCE's Application (collectively, "Intervenors").[7] Although several of the Intervenors recognize the increased risks wildfires present and the negative impact on SCE's credit rating,[8] in general, the Intervenors propose to set SCE's ROE *below* the national allowed ROE average of 9.7 percent for integrated electric utilities in 2018-2019[9] and to lower SCE's ROE further based on perceived benefits of the electric transformation. Even if the unique risk that wildfires present were set aside, there is no reason SCE's authorized ROE should be *below* the national average. Substantial evidence in the record shows investors view investing in California utilities to be riskier than investing in utilities outside of California. Intervenors' recommendations are unreasonable and fall short of meeting the standards established in *Hope* and *Bluefield*.

SCE's proposed changes to its capital structure also are a critical and inseparable part of its goal to improve its financial condition. SCE seeks to reduce its preferred equity percentage from 9 percent to 5 percent and increase its common equity percentage from 48 percent to 52 percent. SCE's proposed changes would reduce SCE's ratio of debt to equity (making it less levered), thereby reducing its overall financial risk. No intervenor objects to SCE's request to reduce its preferred equity. However, Intervenors' alternative proposals to reduce preferred equity would increase SCE's debt level and would not improve its leverage.

SCE's recommended overall ROE of 11.45 percent and capital structure adjustments align fully with the *Hope* and *Bluefield* standards. They will improve SCE's financial health and also send the investment community the message that investors will be compensated fairly for

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7 Several other parties submitted testimony regarding the cost of capital of other investor-owned utilities ("IOUs") in this consolidated proceeding. Such testimony does not include a recommendation regarding SCE's cost of capital, so we do not address it directly.

8 *See, e.g.,* Exhibit FEA-01 (O'Donnell), p. 41 (noting that AB 1054 did not address inverse condemnation and adding that this "legal issue does make an investment in a IOU more risky, as a whole, than an investment in a utility that operates in a state without such liability risk"); Exhibit EPUC-IS-TURN-01 (Gorman), p. V-10 (observing that the credit ratings of California utilities have been decreased "one to three notches between 2017 and 2019").

9 Exhibit SCE-05 (Villadsen), p. 6 (citing Regulatory Research Associates, RRA Regulatory Focus *Major Rate Cases – January -June 2019*, July 22, 2019 and underlying data); *see also* Exhibit EPUC IS-03-C.

their risks, including risks that are needed to achieve the state's important policy objectives enable SCE to continue to provide quality electric service to its customers.

II.
LEGAL STANDARDS AND POLICY CONSIDERATIONS

A. Supreme Court and Commission Precedent Require a ROE that Accounts for the Increased Risks SCE Faces

1. Hope and Bluefield Require that a ROE Be Set Commensurate with Risks

SCE's opening testimony discusses the well-established legal principles that govern the Commission's determination of SCE's 2020 authorized capital structure and rate of return on invested capital. The Supreme Court and the Commission have long recognized that for a rate of return to meet constitutional standards:

- The return must be comparable to returns on investments of similar risk;
- The return should support the utility's credit rating;
- The return should allow the utility to attract the capital necessary to provide proper service to customers; and
- The return must be sufficient to ensure confidence in the financial soundness of the utility.[10]

No party has disputed the applicability of these four principles to the Commission's determination of a rate of return that will maintain SCE's financial integrity, attract capital, and compensate investors fairly for their risks. Indeed, the parties recognize that for a Cost of Capital decision to be lawful, it must meet the mandates set forth in the "seminal" Supreme Court cases that established these principles.[11]

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[10] *Hope*, 320 U.S. 591, 603 (1944) and *Bluefield*, 262 U.S. 679, 690-93 (1923); D.12-12-034, pp. 17-18; D.07-12-049, pp. 9-10.

[11] Exhibit FEA-01 (O'Donnell), pp. 8-9; Exhibit EPUC-IS-TURN-01 (Gorman), p. III-1; Exhibit Cal Advocates-01 (Rothschild), p. 56 n.27.

2. Financial Models are a Starting Point, But Informed Judgment Also is Needed in Setting the Appropriate ROE

The Commission has recognized that to set "the ROE at a level of return commensurate with market returns on investments having corresponding risks, and adequate to enable a utility to attract investors to finance the replacement and expansion of a utility's facilities to fulfill its public utility service obligation," the evaluation of analytical financial models is a "starting point."[12] The Commission has explained that in "the final analysis, it is the application of informed judgment, not the precision of financial models, which is the key to selecting a specific ROE estimate."[13] For this reason, after the Commission evaluates the results of the financial models, it considers "additional risk factors not specifically included in the financial models," such as financial, business, and regulatory risks, and applies "informed judgment" to select a specific ROE estimate.[14] The Commission also "must assess" whether the authorized ROE is "sufficient to maintain and support [the utility's] credit ratings."[15] In fact, *Hope* holds that it is the reasonableness of the end result, not the formula used to arrive at that result, that is relevant.[16]

In past Cost of Capital decisions, the Commission has applied its informed judgment to account for additional risk factors in setting the ROE in two ways. In Decision 05-12-043 and Decision 07-12-049, the Commission calculated a ROE base range based on the financial models. It then increased the ROE base range, making an upward adjustment to include a "risk premium" representing business, financial, and regulatory risks not specifically captured by the models, to arrive at an overall ROE range.[17] For example, in D.07-12-049, the Commission adjusted the base ROE upward to account for investors' perceptions of California regulatory risks and *Value*

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[12] D.12-12-034, p. 18.
[13] D.12-12-034, p. 28; D.07-12-049, p. 28.
[14] D.12-12-034, p. 28; D.07-12-049, p. 28.
[15] D.05-12-043, p. 26.
[16] *Hope,* 320 U.S. 591, 602 (1944).
[17] D.05-12-043, pp. 23-24, 32-33; D.07-12-049, pp. 30-35.

Line's rating of California regulatory environment as below average.[18] The Commission completed its analysis by determining a ROE within the overall ROE range.[19]

In Decision 12-12-034, where SCE and PG&E were seeking to reduce their ROE, the Commission noted that although the Sempra utilities were seeking an upward adjustment to their ROE base ranges to compensate for increased risks, SCE and PG&E reflected the effect of "any perceived increased financial, business and regulatory risk in their selection of specific ROEs within the range of their financial modeling results."[20] The Commission then considered these risk factors in deciding to place SCE at the upper end of its ROE range.[21]

3. Wildfire Risk Must be Taken Into Account

SCE's Application and initial testimony submitted on April 22, 2019 referenced a Base ROE and a Wildfire Risk ROE. In the July 2, 2019 Scoping Memo and Ruling, Commission President Picker explained: "The Commission will not consider a separate wildfire adder in the scope of this proceeding. Risk of all kinds are addressed in this proceeding; thus a separate adder is not appropriate for one risk."[22] SCE clarified with ALJ Stevens that although the Commission will not consider a separate, stand-alone ROE adder for wildfire risk, it will consider wildfire risk among many other risks when determining an authorized ROE. Consideration of wildfire risk is consistent with the Commission's longstanding approach for considering risk factors in prior Cost of Capital cases.[25] The Commission's approach also is consistent with the Supreme Court's focus on determining an overall rate of return.[23]

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[18] D.07-12-049, p. 33.
[19] D.05-12-043, p. 25, 33; D.07-12-049, pp. 35-36.
[20] D.12-12-034, pp. 28-29.
[21] D.12-12-034, p. 39.
[22] A.19-04-014, *Scoping Memo and Ruling of President Picker,* p. 3 (July 2, 2019).
[23] *See Hope*, 320 U.S. at 602-03.

SCE has recommended an overall authorized ROE of 11.45 percent that reflects that increased financial, business, and regulatory risks SCE faces as a result of the state's ambitious electric transformation and clean energy goals and unique and extreme wildfire risks.

4. Credit Rating Agency Views are Important for Assessing Equity Risk

At least one Intervenor has suggested that credit rating agencies do not represent the interest of investors, the implication being that their opinions should not be given any weight.[24] Not all intervenors are aligned on this point. Mr. Gorman testified that "one of the most direct pieces of information available to the equity market are the credit analysts' assessment or the credit standing of the utilities."[25] He adds that the utility's credit rating is "relevant in assessing the investment risk from an equity investor standpoint."[26] This Commission has relied upon credit rating agency reports and ratings in many Cost of Capital cases and also has inferred credit rating agency silence as reflecting an absence of investor risk.[27] In fact, the California utilities would not be able to answer the eight questions the Commission posed in the 2017 Cost of Capital Decision without relying on the credit rating agency metrics.[28] Accordingly, credit rating agency information should continue to factor into the Commission's assessment of risk.

5. A Fair and Reasonable ROE is Necessary to Enable SCE to Meet the State's Policy Goals

To provide reliable, safe, and affordable electric service to its customers and meet California's ambitious electric grid transformation and clean energy goals, SCE needs to prudently invest in its infrastructure. To do so, SCE must be able to attract private investors to fund its substantial infrastructure projects that benefit the public and SCE's customers.

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24 EDF, McCann, Tr. Vol. 6/1028-29.
25 Gorman, Tr. Vol. 3/458.
26 *Id.*
27 D.12-12-034, p. 30-31.
28 D.17-07-005, pp. 12-13.

The Commission long has recognized its adopted ROE must "provide utilities the ability to raise money necessary for the proper discharge of their public duty."[29] For SCE to be able to finance its investments in clean energy and transforming the electric grid, investors need to perceive SCE as an investment that will provide a return competitive with similar investment options. A fair and reasonable rate of return will encourage investors to provide capital for projects that will benefit the public. If investors view the rate of return as inadequate, it will be more difficult for SCE to raise the funds necessary for its infrastructure projects, jeopardizing the state's environmental policy objectives.

B. A Higher ROE is Needed to Compensate for a Higher Debt Ratio

The Commission has recognized that financial risk is tied to a utility's capital structure and as a "utility's debt ratio increases, a higher return on equity may be needed to compensate for that increased risk."[30] SCE has recommended an overall ROE of 11.45 percent based on its proposed common equity ratio of 52 percent. If the Commission were to decline SCE's recommended common equity increase to 52 percent, SCE's overall ROE request would increase to 11.75 percent, consisting of a base ROE of 10.9 percent and an 85 basis point upward adjustment for wildfire risk.[31]

As SCE demonstrates below, its recommended ROE of 11.45 percent and proposed capital structure of 52 percent common equity fulfill the legal requirements of *Hope* and *Bluefield*. SCE's proposals will allow SCE to offer investors a return that will compensate them fairly for the risks of investing in SCE, while increasing confidence in the credit quality and financial soundness of the utility. No party has presented credible evidence that a different capital structure or ROE level will satisfy the four principles of *Hope* and *Bluefield* for a company with SCE's specific risk profile.

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[29] D.12-12-034, p. 29.
[30] D.12-12-034, p. 29.
[31] *See* Exhibit SCE-01 (Wood), p. 3 n.2 and Exhibit SCE-02 (Villadsen), pp. 5, 66.

III.
SCE'S RETURN ON EQUITY

A. SCE's Financial Models Support SCE's ROE Request and Should be Used as a Starting Point

SCE's financial models are based on unbiased third-party economic forecasts, accepted financial principles, and expert judgment. They provide the Commission with a reliable and accurate starting point in setting a fair and reasonable ROE.

1. SCE's Proxy Group is Reasonable and Consistent with Commission Precedent

To begin its base ROE analyses, SCE selected a proxy group that meets the Commission's standards of having "basic characteristics similar to the utility that the companies are selected to proxy."[32] SCE used a proxy group that includes electric, as well as water and natural gas utilities, because gas and water utilities are highly regulated and provide insights into the cost of equity for state-regulated utilities.[33] The Commission has accepted the use of such utility proxy groups in the past.[34] Using the proxy group, SCE calculated a base ROE range for each financial model, which provides the basis for SCE's recommended ROE.

2. SCE's Financial Models All Produce Consistent Results

In support of its Application and its recommended ROE, SCE submitted for the Commission's consideration, the properly calculated results of three standard financial models

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32 D.07-12-049, Conclusion of Law, No. 4, p. 53. SCE's proxy group also is consistent with the selection criteria outlined elsewhere in D.07-12-049.

33 Exhibit SCE-02 (Villadsen), p. 37, Exhibit SCE-05 (Villadsen Rebuttal), p. 21.

34 D.12-12-034, pp. 19-20. Cal Advocates and FEA exclude gas and water utilities but do not provide a rationale for doing so. Joint Intervenors take no issue with inclusion of gas and water utilities in the proxy group and their models include them.

commonly used in ROE proceedings – namely the CAPM, DCF, and RPM.[35] The results of SCE's financial models all support SCE's recommended base ROE of 10.6 percent.

The CAPM calculates the ROE as the return on a risk-free asset and the company-specific business risk measure (beta), multiplied by an expected market risk premium ("Market Risk Premium"). SCE implements a Commission-accepted adjustment to the CAPM through the empirical CAPM ("ECAPM").[36] SCE's CAPM-based models support a ROE range of 9.5 percent to 10.6 percent at 52 percent common equity.[37]

The DCF model encompasses a wider range of approaches and results. Previously, one DCF approach – the multi-stage DCF – was the sole model the FERC used to estimate ROE. But the multi-stage DCF approach has been disfavored recently,[38] as investor behavior has diverged from the model's predictions. SCE's ROE expert Dr. Villadsen calculates a ROE range using both single-stage and multi-stage DCF models for electric and water and gas proxy groups, but she relies more heavily on the single-stage approach in concluding that a ROE range of 9.5 percent to 10.75 percent at 52 percent common equity is fair and reasonable.[39]

The RPM estimates the cost of equity capital for utilities based on the historical relationship between allowed ROEs in utility rate cases and the risk-free interest rate at the time the ROEs were authorized.[40] The RPM provides a useful benchmark for the cost of equity in any interest rate environment.[41] SCE's RPM supports a ROE range of 10.5 percent to 10.6 percent at 52 percent common equity, and Dr. Villadsen shows that these results are statistically sound.[42]

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35 D.12-12-034, p. 22. SCE included ROE results from a sample of Capital-Intensive Network Industries to illustrate the range of ROEs that result for entities of higher risk than regulated utilities but does not include these results in its model range (Exhibit SCE-02 (Villadsen), pp. 10-11).

36 Exhibit SCE-02 (Villadsen), pp. 45-46 and Appendix BV-B-11, Figure A-2; *see also* Exhibit SCE-05 (Villadsen Rebuttal), p. 35.

37 Exhibit SCE-02 (Villadsen), pp. 48-49, Figure 16; p. 57, Figure 20.

38 Exhibit SCE-02 (Villadsen), p.15.

39 Exhibit SCE-02 (Villadsen), pp. 53, 57, Figure 20.

40 Exhibit SCE-02 (Villadsen), p. 53.

41 Exhibit SCE-02 (Villadsen), pp. 55-56.

42 Exhibit SCE-02 (Villadsen), pp. 55-56, Figure 19; p. 57, Figure 20.

When appropriate risk factors are considered, all of SCE's financial model results support SCE's recommended 10.6 percent base ROE. As Dr. Villadsen explains, California and SCE-specific business and regulatory risk factors support placement of SCE near the top of the base ROE range (at 10.6 percent). Dr. Villadsen's financial models, however, do not reflect the unique risks related to California wildfires, which warrant separate analysis, as discussed in Section III.D.

3. SCE and Intervenors Place SCE at the Top of the Financial Model Ranges

Figure III-2 shows SCE's financial model results and recommended ROE and also compares them to the model results and ROE recommendations of the Intervenors.

Figure III-2

Comparison of Parties' Model Results

Party	Model Result ROE Ranges	Recommendations		
		Base ROE[1]	Wildfire Adjustment [2]	Overall ROE
SCE	9.50 - 10.75%[3]	10.60%	0.85%	11.45%
FEA	5.00 - 10.50%[4]	9.00%	0.75%[5]	9.75%
Joint Intervenors	7.00 - 9.62%	9.00%	0.65%	9.65%
Cal Advocates	6.77 - 9.41%	8.65%	0.00%	8.65%
EDF[6]	N/A	N/A	N/A	N/A
SCE Currently Authorized		10.30%	0.00%	10.30%

1 Base ROE refers to the portion of the recommended ROE that can be quantified using standard financial ROE models such as CAPM, DCF, , and RPM.

2 Wildfire adjustment refers to the portion of the recommended ROE that has been quantified using alternative methodologies, e.g., Brattle's insurance premium methodology.

3 SCE's model results and recommendations assume a 52 percent authorized level of common equity.

4 FEA witness O'Donnell does not use the RPM. He includes results from a comparable earnings analysis.

5 FEA witness O'Donnell refers to his recommended 0.75% ROE premium as related to inverse condemnation.

6 EDF did not use any financial models and does not make any specific ROE recommendation.

As discussed, SCE's expert Dr. Villadsen recommends placing SCE at the high end of the model range because of unique California risks. Figure III-2 shows that Intervenors also place SCE at the high end of their model ranges. Intervenors' model ranges, however, have a clear downward bias and other shortcomings, which SCE discusses below.

B. The Intervenors' Financial Models are Based on Incorrect Assumptions and Inputs and the Commission Should Reject Their Recommendations

The Intervenors present their financial model results as supporting accurate estimates of a fair and reasonable ROE for SCE. However, as discussed below, the Intervenors' models rely on inaccurate assumptions and inputs that cause a severe downward bias in their results. A comparison of Intervenors' ROE recommendations to authorized ROEs for comparable utilities across the country clearly shows Intervenors' downward bias. In addition, Intervenors fail to account for accepted principles of financial leverage, and they selectively use models that produce lower ROEs.

1. Intervenors' ROE Recommendations are Below the National ROE Average and Reflect a Clear Downward Bias

A clear indication of Intervenors' downward bias is the fact that their models result in a ROE for SCE that is below the national ROE average. In determining a fair and reasonable ROE, this Commission consistently has considered the average national ROE authorized by regulatory commissions throughout the country.[43] Dr. Villadsen has pointed out that the average ROE authorized for electric utilities in 2018-2019 was 9.7 percent.[44] The Intervenors' experts likewise have acknowledged an average ROE of 9.6 to 9.7 percent in 2018-2019.[45] In fact, only one of 45 integrated electric utilities nationwide had an authorized ROE at or below 9.0 percent.[46] Yet each

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[43] D.12-12-034, p. 39.
[44] Exhibit SCE-05 (Villadsen Rebuttal), p. 6.
[45] Exhibit EPUC-IS-TURN-01 (Gorman), p. II-3; FEA, O'Donnell, Tr. Vol. 3/361.
[46] Exhibit SCE-05 (Villadsen Rebuttal), p. 4, n.3.

Intervenor recommends a base ROE for SCE at or below 9.0 percent, which would suggest California is less risky than other states.[47] Even if the unique California risk factors that warrant a higher ROE for California utilities were set aside, there is no reason SCE's authorized ROE should be below the national average. In light of this, Intervenors' below average ROE recommendations must be seriously questioned.

In fact, recent credit rating downgrades and credit rating agency reports provide substantial evidence that investors view investment in California utilities to be much riskier than investment in other utilities and strongly support a ROE well-above the national average.

2. Intervenors Fail to Account for Financial Leverage in Recommending a ROE

As discussed in Section II.B above, if the Commission were to decline to adopt SCE's request to increase its common equity percentage to 52 percent, a higher ROE of 10.9 percent would be necessary to satisfy the *Hope* and *Bluefield* principles.[48] This increase in ROE is necessary to account for the basic financial concept that financial leverage affects ROE.

EDF agrees with this basic financial principle. In fact, EDF's witness Dr. McCann criticized the utilities that are seeking to increase their equity layer (including SCE) for failing to take financial leverage into account in their ROE recommendations. However, at hearings, he acknowledged that SCE had taken financial leverage into account in determining its ROE.[49]

Mr. Gorman, the Joint Intervenors' ROE witness, takes the unreasonable position that ROE should be calculated without regard to the level of debt in the capital structure,[50] a position contrary to the Commission's own practice, as well as well-accepted financial principles. Similarly, Cal Advocates witness Mr. Rothschild and FEA's witness Mr. O'Donnell recommend

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47 *Id.*
48 Exhibit SCE-02 (Villadsen), pp. 4-5, 11-13, and Appendix B.
49 McCann, Tr. Vol. 6/1013-14.
50 Exhibit EPUC-IS-TURN-01 (Gorman), p. VII-41.

alternatives that would increase SCE's current debt levels and leverage, without making corresponding adjustments to SCE's ROE.

3. Intervenors' CAPM and ECAPM Estimates are Flawed

To calculate the CAPM and ECAPM adjustment, assumptions must be made about the risk-free rate, the company-specific risk measure (beta), and the expected market risk premium.[51] Intervenors' CAPM and ECAPM results are inaccurate and unreliable for the following key reasons discussed in more detail below:

- Intervenors rely on historical values for the risk-free rate, which is inappropriate when establishing a ROE for 2020-2022, and they fail to take into account downward pressure on interest rates since the 2008 financial crisis, which suppresses their risk-free rate.
- Intervenors fail to apply the CPUC-accepted financial leverage adjustment that ensures an accurate comparison between SCE and the proxy companies.
- Intervenors base their Market Risk Premium calculations on total market returns rather than income returns and use geometric means for a forecast, which is incorrect.
- Intervenors fail to apply the CPUC-accepted ECAPM.

a) SCE's Forecasted Risk-Free Rate Remains Reasonable

A key element driving the difference in results of SCE's CAPM and Intervenors' CAPM is the risk-free rate. Because this proceeding is establishing a ROE for 2020-2022, Dr. Villadsen relies on a forecast of 20-year Treasury bond yields for 2020, adjusted for any unusual downward

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[51] Exhibit SCE-02 (Villadsen), p. 39.

pressure.[52] Third-party economic indicators predict a sustained increase in the risk-free rate going forward.[53]

FEA's witness Mr. O'Donnell and Cal Advocates' witness Mr. Rothschild, in contrast, rely on historical values for the risk-free rate.[54] The use of a historical value, rather than a forecast, for the risk-free rate produces an inaccurate and unreliable result given that the proceeding is establishing a ROE for 2020-2022, not 2019 or earlier. Although Mr. Gorman, the Joint Intervenors' witness, uses a forecast, he fails to take into account downward pressure on interest rates since the 2008 financial crisis.[55] This failure underestimates the CAPM ROE by 20 basis points.[56]

Although the IOUs' ROE requests do not reflect post-filing reductions in interest rates, including the risk-free rate, at hearings, it emerged that recent reductions in the interest rates would have a marginal impact on the ROE requests, if any. For example, the risk-free rate does not impact the DCF model and has only a minimal impact on the RPM. PG&E witness Dr. Vilbert and SDG&E witness Dr. Morin also explained that, with respect to the CAPM-based models, a drop in the risk-free rate will cause the Market Risk Premium used in the CAPM to increase, not decrease.[57] Moreover, the reduction in the recent Federal Funds Rate is a moment-in-time reduction but does not change the fact that third-party economic forecasts continue to show rates increasing over time.[58] At hearings, Dr. Morin was willing to estimate that the recent

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[52] Exhibit SCE-02 (Villadsen), pp. 40-41. Dr. Villadsen uses a forecast for 2020 because the Commission has provided for an adjustment mechanism to allow for movements above a certain level in interest rates – the Cost of Capital Adjustment Mechanism ("CCM"). *See* D.08-05-035 and D.13-03-015.

[53] Exhibit SCE-02 (Villadsen), p. 21; Exhibit SDG&E-09 (Morin Rebuttal), pp. 22-23; PG&E, Vilbert, Tr. 3/541-542.

[54] Exhibit Cal Advocates-01 (Rothschild), p. 25; FEA-01 (O'Donnell), p. 35; Exhibit SCE-05 (Villadsen Rebuttal), p. 24.

[55] As Dr. Villadsen explains at Exhibit SCE-02, p. 17, one implication of the recent elevation in the spread between utility bond yields and Treasury bond yields is that monetary policy has put downward pressure on risk-free rates. Mr. Gorman's analysis does not account for this downward pressure.

[56] *Id. See also* Exhibit SCE-02 (Villadsen), p. 17.

[57] PG&E, Vilbert, Tr. Vol. 4/579.

[58] Exhibit SCE-02 (Villadsen), p. 21; PG&E, Vilbert, Tr. Vol. 3/541-42.

drop in interest rates could impact SDG&E's base ROE by reducing it 0.2 percent,[59] whereas Dr. Vilbert was unwilling to estimate the impact on his prior forecast.[60]

b) SCE's Beta Must be Adjusted for Financial Leverage

The only disputed issue among the parties regarding the beta (or measure of business risk) in the CAPM is the adjustment SCE uses to control for financial risk or leverage. Financial leverage – the relative share of debt and equity in the company's capital structure – is a key element of equity risk. Financial leverage matters in determining a fair and reasonable ROE because higher financial leverage amplifies the volatility of earned equity returns, all other factors equal. As such, it is a critical factor in determining the required ROE that investors demand. An adjustment therefore is needed to enable SCE to use companies with different financial risk to determine the appropriate ROE for SCE on an "apples to apples" basis.[61] Because SCE's leverage is higher than its proxy group, failure to make this adjustment undervalues the ROE.[62]

SCE used what is known as a *Hamada* adjustment to control for financial leverage in its CAPM model.[63] As SCE witness Dr. Villadsen explains, the *Hamada* adjustment is a standard textbook technique used to control for financial leverage and isolate business risk.[64] SCE has used the *Hamada* adjustment for many years in prior Cost of Capital applications.[65] In setting an ROE, the Commission has adopted SCE's model results that incorporate this adjustment.[66]

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59 SDG&E, Morin, Tr. Vol. 2/263.
60 PG&E, Vilbert, Tr. Vol. 4/579.
61 Exhibit SCE-02 (Villadsen), pp. 12, 44 and Appendix BV-B-18. The observed betas of the firms in the proxy group are levered betas, incorporating the combined effect of business risk and financial risk (leverage).
62 Exhibit SCE-02 (Villadsen), p. 44 and n.69.
63 Exhibit SCE-02 (Villadsen), p. 12, 44 and Appendix BV-B-18. The *Hamada* adjustment "unlevers" the beta of the proxy group companies to calculate an unlevered beta that captures only business risk – that is, the financial risk effect measured by the firm's debt/equity ratio is removed to isolate the beta corresponding to each firm's business risk. This business risk beta is then re-levered at SCE's debt/equity ratio to properly calculate the beta that should be used to estimate SCE's cost of equity.
64 Exhibit SCE-02 (Villadsen), p. 44 and n.69, Appendix BV-B, pp. 16-18.
65 Exhibit SCE-13, p. 63 (describing the unlevering and re-levering of the company betas).
66 Exhibit SCE-13, pp. 63, 67 (SCE's CAPM results using the Hamada adjustment produced a ROE range of 9.73 percent to 11.71 percent) and D.12-12-034, p. 38 (pointing to SCE's CAPM results and

Joint Intervenors oppose the use of the *Hamada* adjustment but not because they disagree it is standard finance practice. They argue that because the *Value Line* betas of the proxy companies that Dr. Villadsen uses for her CAPM-based models are already adjusted for leverage, it is inappropriate to apply a *Hamada* adjustment to them.[67] But the Joint Intervenors offer no reason why the *Hamada* adjustment should not be used to control for leverage in this context. The Joint Intervenors also claim that Dr. Villadsen's *Hamada* adjustment "mismatches the measurement of leverage risk for the proxy group, and that for SCE."[68] The Joint Intervenors are incorrect. Dr. Villadsen appropriately applies the *Hamada* adjustment to unlever the equity betas of the companies in her proxy group, which are based on their market value capital structures, and then relever them at the SCE's regulatory capital structure, because that is the capital structure that is used to set the ROE.[69]

c) Intervenors' Market Risk Premiums Are Flawed

The Market Risk Premium is the premium above the risk-free interest rate that investors can expect to earn by investing in the market as a whole and is an indication of the level of risk compensation capital market participants demand.[70] The Market Risk Premium is not directly observable but must be forecasted based on market information.[71] SCE uses two estimates of the Market Risk Premium:

ROE range of 9.73 percent to 11.71 percent using the *Hamada* adjustment). Dr. Villadsen also calculated after-tax weighted average cost of capital ("ATWACC") adjustments, just as SCE did in the 2013 Cost of Capital proceeding. *See* Exhibit SCE-02 (Villadsen), p. 47, Figure 15; p. 57, Figure 20. But as in the 2013 Cost of Capital Proceeding (D.12-12-034, p. 25, n.58), SCE does not propose that its ATWACC adjustments be used as an adjustment to the CAPM to determine its cost of capital.

67 Exhibit EPUC-IS-TURN-01 (Gorman), p. VI-52.
68 Exhibit EPUC-IS-TURN-01 (Gorman), p. VI-52.
69 Exhibit SCE-02 (Villadsen), p. 44 and n.69, Appendix BV-B, pp. 16-18.
70 Exhibit SCE-02 (Villadsen), p. 21.
71 Exhibit SCE-02 (Villadsen), p. 41.

1) a historical average premium calculated from the difference of market returns over the income returns on government bonds from 1926 to 2017, which is 7.07 percent;
2) a forecast based on empirical evidence that the Market Risk Premium has increased relative to historical levels by approximately 1 percent, for a Market Risk Premium of 8.07 percent.[72]

Intervenors' estimates of the Market Risk Premium have serious flaws. First, Mr. Gorman and Mr. O'Donnell calculate the historical Market Risk Premium using total market returns rather than income returns. Because the income return is the only part of the return that is truly risk free, using total market returns is not correct.[73] Second, Mr. O'Donnell relies on a geometric mean, rather than arithmetic mean, to forecast the Market Risk Premium.[74] Although geometric means are a useful way to measure historical performance, they are not accurate in forecasting expected future returns needed for the CAPM and they result in underestimating future returns.[75] Empirical evidence and academic opinion support the superiority of arithmetic averages in forecasting expected returns.[76]

Finally, Mr. O'Donnell uses survey data to support his Market Risk Premium,[77] but several witnesses testified that the use of survey data to estimate the Market Risk Premium is seriously flawed.[78]

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[72] Exhibit SCE-02 (Villadsen), p. 42.
[73] Exhibit SCE-05 (Villadsen Rebuttal), p. 30.
[74] Exhibit FEA-01 (O'Donnell), p. 37.
[75] Exhibit SCE-05 (Villadsen Rebuttal), pp. 30-31. Exhibit SDG&E-09 (Morin Rebuttal), pp. RAM-28 through RAM-30.
[76] Exhibit SCE-05 (Villadsen Rebuttal), p. 31
[77] Exhibit FEA-01 (O'Donnell), p. 38.
[78] Exhibit SCE-05 (Villadsen Rebuttal), p. 32. Exhibit SDG&E-09 (Morin Rebuttal), pp. RAM-60 through RAM-61; PG&E, Vilbert, Tr. Vol. 3/543 and SDG&E, Morin, Tr. Vol. 2/256-257 (regarding unreliability of surveys).

d) Empirical Data Supports SCE's ECAPM Adjustment

The ECAPM is an adjustment to the CAPM to account for the fact that the CAPM tends to underestimate the ROE for stocks with betas below one and overestimates the ROE for stocks with betas above one. The adjustment makes the stock's risk/expected return relationship match more closely the risk/expected return relationship observed in empirical tests. The ECAPM thus is a more accurate prediction of eventual realized risk premiums than the CAPM. Because betas for all utilities in the proxy group are below one, failing to consider the ECAPM artificially reduces the ROE. Dr. Villadsen estimates that by failing to consider the ECAPM, Intervenors' ROE estimates are underestimated by between 0.4 to 0.6 percent.[79]

Dr. Villadsen provides academic evidence in support of adjusting CAPM results through the use of the ECAPM.[80] SCE used the ECAPM in its 2013 Cost of Capital proceeding, and the CAPM-based ROE range upon which the Commission relied in its decision in that proceeding indicates acceptance of this adjustment.[81]

Mr. Gorman argues that because *Value Line* already adjusts betas, application of ECAPM would be a form of double-counting. But Dr. Villadsen shows that *Value Line's* adjustment to betas is fundamentally different from and complementary to ECAPM. *Value Line's* adjustment to betas corrects the estimate of the relative risk of the company, whereas ECAPM adjusts the risk-return tradeoff, meaning that the expected return for a given level of risk is different from predictions of the CAPM.[82] Accordingly, there is no double-counting.

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79 Exhibit SCE-05 (Villadsen Rebuttal), pp. 35-36 and Figure 12.
80 Exhibit SCE-02 (Villadsen), Appendix BV-B-12.
81 Exhibit SCE-13, pp. 63, 67, Table IV-8 (SCE's CAPM-based model results included the ECAPM and produced a ROE range of 9.73 percent to 11.71 percent) and D.12-12-034, p. 38 (pointing to SCE's CAPM-based model results, including ECAPM, and ROE range of 9.73 percent to 11.71 percent).
82 Exhibit SCE-05 (Villadsen Rebuttal), pp. 36-39.

4. The Intervenors' DCF Models and Assumptions are Flawed

The DCF model is based on the relatively simple intuition that the expected return on an investment is equal to the expected current income (i.e., the next dividend payment) plus the expected amount of capital gain (i.e., the growth in the share price based on the growing value of future dividend payments).

The dividend growth rate is the most controversial input into the DCF.[83] SCE's reliance on unbiased, third-party financial inputs is superior to Intervenors' reliance on historical data for establishing a forecast or, worse, reliance on the circular and illogical sustainable growth methodology. SCE discusses below the DCF components and Intervenors' flawed assumptions related to each.

a) SCE's Use of Financial Analysts' Forecasts is the Most Reliable Method for Estimating Dividend Growth Rates

There are three ways to estimate growth rates: 1) use average historical growth rates; 2) rely on financial analysts' forecasts of earnings per share ("EPS") growth rates (through a single or multi-stage analysis); and 3) calculate the sustainable growth rate. SCE's witness Dr. Villadsen used the second approach, relying on consensus 3-5 year growth rate data from I/B/E/S,[84] supplemented with consensus value growth rates based on EPS estimates from *Value Line*.[85] Dr. Villadsen explains that reliance on the forecasts of financial analysts (second approach) is the best source of growth rates because those forecasts attempt to capture the market sentiment of investors.[86] Although Dr. Villadsen used single- and multi-stage DCFs, concerns

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83 Exhibit SCE-05 (Villadsen Rebuttal), p. 43.
84 I/B/E/S stands for "Institutional Brokers' Estimate System" and is a database of earnings estimates, which is currently owned by Thomson Reuters.
85 Exhibit SCE-02 (Villadsen), Appendix BV-B-4.
86 Exhibit SCE-05 (Villadsen Rebuttal), p. 45; Appendix BV-B-4 through BV-B-5.

over how the multi-stage model has performed caused her to give it somewhat less weight than the single-stage approach.[87]

FEA witness Mr. O'Donnell, in contrast, relies on historical growth rates,[88] which is problematic because it requires an assumption that the future will be exactly like the past.[89] For example, reliance on historical rates fails to reflect the higher cost of equity due to tax reform.[90] Historical rates of growth also provide less information than analyst projections because financial analysts already take into account historical rates in their forecasts.[91]

Reliance on the third approach – a sustainable growth rate[92] – has a number of weaknesses.[93] SDG&E witness Dr. Morin explained that this method is circular when applied to regulated utilities because it requires establishing the authorized ROE that is being calculated.[94] Notably, while Mr. O'Donnell ran a model using this approach for Sempra, he did not rely on the results.[95] He did however rely on the results for SCE.[96] Selective application of the sustainable growth methodology[97] calls into question its reliability.

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87 Exhibit SCE-02 (Villadsen), p. 16 (noting that the FERC recently expressed concern about and reconsidered its primary reliance on the multi-stage DCF model to calculate ROE because investor behavior has diverged from that model's predictions.).

88 Exhibit FEA-01 (O'Donnell), pp. 48-50.

89 Exhibit SCE-05 (Villadsen Rebuttal), p. 43.

90 Exhibit SCE-05 (Villadsen Rebuttal), p. 5.

91 Exhibit SCE-05 (Villadsen Rebuttal), p. 43.

92 Exhibit Cal Advocates-01 (Rothschild), p. 19. This is also referred to as the "plowback" method.

93 Exhibit SCE-05 (Villadsen Rebuttal), p. 46.

94 SDG&E, Morin, Tr. Vol. 2/202-203.

95 Exhibit FEA-01 (O'Donnell), p. 60. Mr. O'Donnell selects a dividend growth rate range of 5.5% to 7.5%, despite having calculated a plowback growth rate of 4.0% for Sempra, which is below the bottom of the range.

96 Exhibit FEA-01 (O'Donnell), p. 50, lines 2-4 and Exhibit KWO 5, relying on an average of the plowback growth rates for Edison International and with two other forecasted growth rates.

97 *See also* Exhibit EPUC-IS-TURN-01, p. IX-18 (reducing the weight given to the sustainable growth methodology for SoCalGas); SDG&E, Morin, Tr. Vol. 2/204-205 (indicating that although Mr. O'Donnell and Mr. Gorman used the sustainable growth method in their DCF analysis for SDG&E, they rejected the results in the final recommendation and placed "no weight on it").

Mr. Rothschild puts "all his eggs in one basket, the DCF basket using sustainable growth," while refusing to perform a RPM and giving his CAPM results zero weight.[98] Relying on *Value Line* forecasts of expected returns on book value per share for 2022-2024, Mr. Rothschild sets the return on book value of equity equal to 10.50 percent in perpetuity.[99] Yet, Mr. Rothschild recommends a ROE of only 8.65 percent, showing the illogic and inherent bias in his sustainable growth methodology.[100] Given the problems with the sustainable growth methodology and the trend away from primary reliance on the DCF approach, Mr. Rothschild's ROE recommendation should be considered with skepticism.[101]

Although Mr. Rothschild's *Value Line* data is not particularly useful for its intended purpose, it does support the notion that SCE is riskier than its peers. The data shows that SCE's parent, Edison International ("EIX"), has the second lowest financial "Safety" ranking of all the utilities in its proxy group and is tied for last place out of 29 utilities in the peer group.[102] *Value Line* indicates that stocks with "Safety" ranks of 1 or 2 are most suitable for conservative investors, whereas EIX and two other utilities received financial "Safety" rankings of 3, indicating that these are higher risk investments.[103]

b) SCE Uses the Most Reasonable Time Period for Determining the Current Stock Price

Intervenors also select inappropriate periods over which to determine the current stock price for their DCF models.[104] Whereas SCE's witness Dr. Villadsen uses a reasonable 15 trading days,[105] Mr. Gorman uses the average stock price over a 13-week period, which is too long. Mr.

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98 SDG&E, Morin, Tr. Vol. 2/215-216.
99 Exhibit Cal Advoctes-01 (Rothschild), p. 18; Exhibit SCE-05 (Villadsen Rebuttal), p. 46.
100 Exhibit SCE-05 (Villadsen Rebuttal), pp. 44-45.
101 Exhibit Cal Advoctes-01 (Rothschild), p. 30, lines 9-12.
102 Exhibit SCE-11 (showing a Safety rank of 3 for EIX, Entergy Corp. and PNB Resources only and 2 or 1 for all others in the proxy group).
103 Exhibit SCE-10, *How to Read a Value Line Report,* p. 4.
104 Exhibit SCE-05 (Villadsen Rebuttal), p. 41.
105 Exhibit SCE-02 (Villadsen), Appendix BV-B-4, Section C.1.

Rothschild uses a single day, June 30, 2019, which is far too short.[106] Too long an estimation period weakens the forward-looking nature of the DCF model, while too short a period fails to eliminate the impact of a single unusual day.

c) SCE's Time Period for Forecasting the Dividend Price is Superior Because it Avoids the Need for Approximation and is Transparent

Mr. Gorman, Mr. Rothschild, and Mr. O'Donnell all rely on an annual estimation period for the dividend price in their DCF models. SCE's use of a quarterly period, however, is preferable because it reflects the actual period when dividends are paid and removes the need for approximation required by an annual estimation period.[107] Mr. O'Donnell's objection to SCE's calculation of the dividend yield formula should be dismissed because he assumes SCE is using a longer period of time, which would require approximation.[108] Mr. O'Donnell, however, is incorrect as SCE is using the preferred quarterly period which requires no approximation.

Mr. O'Donnell states that he uses 12-month ahead dividend price forecasts from *Value Line*. However, his cited dividend yields do not match the yields *Value Line* provides.[109] Moreover, it is not clear how *Value Line* calculates the dividend yield forecast. Mr. O'Donnell's method therefore is not transparent and cannot be relied upon.

5. SCE's Risk Premium Model is Statistically Sound and Supports the DCF and CAPM Results

The Risk Premium Model ("RPM") estimates the cost of equity capital for utilities based on the historical relationship between authorized ROEs in utility rate cases and the risk-free rate of interest at the time the ROEs were granted.[110] The RPM is a standard model that both the

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[106] Exhibit Cal Advocates-01 (Rothschild), p. 16. Mr. Rothschild's market data is as of Friday June 28, 2019.
[107] Exhibit SCE-05 (Villadsen Rebuttal), p. 41.
[108] Exhibit FEA-01 (O'Donnell), p. 82. FEA argues incorrectly that SCE should use 1 + 0.5g as opposed to 1+ g. FEA would be correct only if SCE had used a 6-month period, rather than a quarterly period.
[109] Exhibit FEA-01 (O'Donnell), p. 26.
[110] Exhibit SCE-02 (Villadsen), p. 53.

Commission and FERC use. It serves as a valuable benchmark for analyzing the appropriateness of the results of other empirical models.

To estimate the risk premiums as part of the RPM, Dr. Villadsen performed a regression analysis using rate case data from 1990-2018 and average 20-year Treasury bond yields. Dr. Villadsen demonstrates that her RPM results confirm the accuracy and reasonableness of her 10.6 ROE recommendation.[111]

Neither Mr. Rothschild for Cal Advocates nor Mr. O'Donnell for FEA nor Dr. McCann for EDF performs a RPM analysis to estimate a ROE. (In fact, Dr. McCann did not use any of the standard financial models to calculate a ROE.)[112] Indeed, despite the Commission's reliance on the RPM in prior decisions to help determine a fair and reasonable ROE, Mr. Rothschild inexplicably declares the RPM "flawed"[113] because it relies on a "compilation of the average returns on equity allowed by utility commissions throughout the United States for each of the last several years."[114] But this approach is a strength, not a flaw. As Dr. Villadsen explains, the RPM "is the only model that directly compares the allowed return for regulated utilities to that calculated for SCE."[115]

Rather than running a standard RPM, Mr. O'Donnell compares earnings for EIX, SCE's parent company, to those of a proxy group. This comparative earnings analysis relies upon two years of historical and five years of forecast earnings based on the book value for a proxy group of regulated utilities outside of California. Using this approach, he calculates a ROE range of 9.5 percent to 10.5 percent.[116] Notably, the high end of his range is consistent with Dr. Villadsen's RPM range.[117] This result is an important data point for the Commission because it demonstrates

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[111] Exhibit SCE-02 (Villadsen), pp. 54-55.
[112] *See* EDF, McCann, Tr. Vol. 6/1012-13.
[113] Exhibit Cal-Advocates-01 (Rothschild), p. 91.
[114] Exhibit Cal-Advocates-01 (Rothschild), p. 88.
[115] Exhibit SCE-05 (Villadsen Rebuttal), p. 39.
[116] Exhibit FEA-01 (O'Donnell). p. 52.
[117] Exhibit SCE-02 (Villadsen), p. 55, Figure 19.

that regulatory commissions nationwide are granting authorized ROE to SCE's peers outside of California that are much higher than the ROEs Intervenors have proposed for SCE, even without consideration of any unique California risks.

Mr. Gorman does perform an RPM analysis for the Joint Intervenors, but his analysis contains serious flaws. It is based on a risk-free rate that is too low.[118] Mr. Gorman has two versions of the RPM, one that compares authorized utility equity returns to the yield of a 30-year Treasury Bond and one that compares authorized utility equity returns to the yield of an "A" rated utility bond. Mr. Gorman then calculates the five and ten-year rolling averages of the equity risk premium for both versions. However, instead of simply using the current five or ten-year rolling average, Mr. Gorman takes a weighted average of the highest rolling averages (which is close to the current rolling average) and the lowest rolling averages experienced over the last 34 years. In essence, Mr. Gorman has lowered his ROE range by mixing today's observed equity risk premiums with those from more than 25 years ago.[119] Finally, and most importantly, he does not recognize the inverse relationship between the risk premium and interest rates.[120]

6. Market-to-Book Ratios are Irrelevant

The market-to-book ratio is the ratio of the market price of a share of stock to its book value. Several Intervenors claim or imply that a market-to-book ratio greater than 1.0 is prima facie evidence that regulators have allowed ROEs greater than the cost of capital.

It is a fallacy to consider a market-to-book ratio above one as indicative of an allowed ROE that is too high. Just as financial economics cannot explain absolute stock prices, neither can it explain market-to-book ratios.[121] Dr. Villadsen also explains that using the market-to-book ratio to determine the ROE is circular:

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[118] Exhibit SCE-05 (Villadsen), p. 40.
[119] Exhibit SDG&E-09 (Morin), p. RAM-81; Exhibit EPUC-IS-TURN-01 (Gorman). p. VII-34; Exhibit EPUC-IS-TURN-01 (Gorman). p. VII-Exhibit MPG 10-11.
[120] Exhibit SCE-05 (Villadsen), p. 40. Exhibit SDG&E-09 (Morin), pp. RAM-81 through RAM-82.
[121] Exhibit SCE-05 (Villadsen Rebuttal), p. 48.

> If investors believed that the Commission was attempting to target a MB ratio of 1.0, the ratio would not deviate from 1.0 because investors would know that the Commission would alter the allowed ROE if it did deviate. Under that policy, the MB would provide no information about the relationship between the allowed ROE and the cost of capital.[122]

Dr. Morin likewise explains that because utilities across the country have been trading at a market-to-book ratio of about two for 30 years,[123] a Commission decision trying to affect a market-to-book ratio closer to one would result only in undercompensating California investors and constraining utilities' ability to attract capital.[124]

Dr. McCann's fruitless attempts to use market-to-book ratios to estimate a ROE leads to absurd results. Dr. McCann calculates PG&E's implied market return – the return earned by its investors – as exceeding 14 percent upon bankruptcy.[125]

In the past, the Commission has examined market-to-book values and chose not to rely upon them in setting a ROE.[126] Instead, the Commission, like other regulators, seeks to set the allowed ROE equal to the cost of capital to meet the standards the Supreme Court has specified, rather than trying to achieve an arbitrary and circular market-to-book outcome.[127]

C. Additional Risks Warrant Placing SCE at the High End of the Financial ROE Model Range

After determining the base financial ROE model range, the Commission applies informed judgment to include additional risks not adequately reflected in the financial models, including business, financial and regulatory risk.[128] The following business, financial, and regulatory risks

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122 *Id.*
123 SDG&E, Morin, Tr. Vol. 2/211.
124 SDG&E, Morin, Tr. Vol. 2/299, lines 16-20 ("If utility stocks have market-to-book ratios of one and everybody else has a two or three on the overall stock market you are going to be at a disadvantage in terms of attracting capital for one thing.").
125 Exhibit SCE-05 (Villadsen Rebuttal), p. 49.
126 D.04-03-039, pp. 65-66 (declining to rely upon a market to book conversion in determining a reasonable equity return); *see also* D.07-12-049, p. 44.
127 *Id.*, 48.
128 D.07-12-049; D.12-12-034.

that SCE faces, which are described more fully below, strongly support the placement of SCE at the high end of the financial model ROE range:

- California's ambitious and recent increased Renewables Portfolio Standard ("RPS"), which will require procurement from new technologies at an unprecedented scale, creates substantial operational risks for SCE that are greater than those utilities face outside of California given the lower RPS standards in other states and diminishing implementation of RPS policies throughout the country.

- The operational risks associated with California's trajectory towards a 100 percent clean energy standard are exacerbated because California's new standards are being implemented in a changing competitive environment as a result of Direct Access, Community Choice Aggregation ("CCA"), distributed energy resources, and the shift to greater electrification. The Commission itself has recognized and highlighted the challenges and dangers this changing environment presents.

- California's electric grid transformation and clean energy goals create the need for new capital investments. Although these increased expenditures are not unique to SCE or California, the scale of investments is significantly greater. In addition, given the trend of increased regulatory lag in California in comparison to other states, SCE faces greater disallowance exposure, as credit rating agencies have observed.

1. SCE's Business Risk Has Increased Since the Last Cost of Capital Proceeding Due to an Increased RPS and Industry Transformation

Business risk pertains to new uncertainties resulting from competition and the economy. An increase in business risk can be caused by a variety of events that include capital investments, electric procurement, and catastrophic events.[129] Since the last Cost of Capital proceeding, SCE faces increased operational and cost-shifting risks in all three categories, creating increased shareholder exposure. Credit rating agencies have taken note, expressing concerns about the operational demands being placed on California utilities as a result of the state's ambitious energy

[129] D.12-12-034, p. 30.

policy goals.[130] The Commission also has warned about the challenges and risks the evolving California electricity market and customer choice present.[131] SCE and its shareholders support California's clean energy goals and electric grid transformation. However, because these programs come with risks, shareholders need to be compensated fairly so that SCE can the access capital necessary to ensure their success.

a) The Scale of California's Recent RPS Changes Creates Unique Risks for California Utilities

Significant changes in SCE's electric procurement have occurred since the last Cost of Capital case. In particular, in 2018, SB 100 dramatically increased the RPS to 60 percent by 2030 and 100 percent carbon-free electricity by 2045.[132] Although the RPS is neither new nor unique to California, the mere fact that other states have RPS programs does not mean that they pose equal or even comparable risks. California's RPS is, by any measure, one of the highest in the nation and double or triple most other states.[133] Moreover, RPS programs in other states do not include the same restrictive definitions of what qualifies as a renewable resource; therefore, they are not as high as they appear.[134] Credit rating agencies have called out specifically the new California RPS as an area of concern given the operational demands being placed on California utilities.[135]

Historically, California has been a leader in procuring renewable and alternative power. This leading position has required California utilities to enter into long-term renewable energy and capacity contracts at high prices – the only prices available in nascent markets.[136] SCE faces

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[130] Exhibit SDG&E-23-C, *Moody's Report August 2, 2019*, pp. 6-7.
[131] Exhibit SCE-04, Appendix A, *California Customer Choice, An Evaluation of Regulatory Framework Options for an Evolving Electricity Market* (August 2018) (excerpts).
[132] Exhibit SCE-01 (Stern), p. 10.
[133] Exhibit SCE-01 (Stern), p. 10; Exhibit EPUC IS-06.
[134] SCE, Stern, Tr. Vol. 1/128.
[135] Exhibit SDG&E-23-C, *Moody's Report August 2, 2019*, pp. 6-7.
[136] Exhibit SCE-01 (Stern), p. 31 & Appendix B, EPUC-SCE-005 Q.09, regarding collateral requirements.

additional risk with respect to the new RPS standards, which will require procurement from new technologies at an unprecedented scale. California's trajectory towards a 100 percent clean energy standard may create a further chasm between California and the rest of the nation, given that the role of RPS policies across the country has diminished in recent years.[137] Some states are considering whether RPS policies are still needed and whether the costs outweigh the benefits.[138]

Dr. Stern describes the operational risks associated with a 100 percent clean energy standard. This standard is different in kind than the lower standards in other states, because of issues related to intermittency and the duck curve, which refers to the midday challenge of having low net load and the ramp that occurs once the sun begins to set in the evening.[139] At hearings, Dr. Stern explained:

> When we're talking about a substantial increase, we're talking about a doubling of the target for 2030 and going to basically a previously unforeseen 100 percent clean energy by 2045. That creates a variety of new risks. Operating a system with that kind of an energy mix is something we've never seen or done before.[140]

Dr. Stern added that it is yet unknown how much reduction in flexible fossil fuel resources the system can withstand.[141]

These risks are exacerbated because the new standards are being implemented in a departing load environment as a result of direct access and CCA, as discussed below. This combination of factors will require the restructuring of procurement contracts and cause current procurement levels to be heavily scrutinized and called into question. The risks and uncertainty related to these contracts are asymmetric because they are not offset by direct shareholder return

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[137] EPUC IS-06, p 2.
[138] EPUC IS-06, p 2.
[139] SCE, Stern, Tr. Vol. 1/113-114.
[140] SCE, Stern, Tr. Vol. 1/108, 112-116.
[141] SCE, Stern, Tr. Vol. 1/115.

potential due to decoupling.[142] Increased competition, policy changes, and/or changes in generation technology could leave SCE with contracts for unneeded and high cost power.[143]

For these reasons, EIX and SCE have identified specifically for investors the "increasing procurement of renewable power and energy storage" among the "risks related to Southern California Edison Company" that could materially affect its financial condition and results of operation.[144] Credit rating agencies, likewise, have pointed out the risks. [145] Notably, Moody's has expressed concerns regarding "significant demands that are placed on the California utilities, including many ambitious public policy initiatives that are implemented through utility operations," and pointed to the new RPS standards specifically.[146]

b) Recent Mass Adoption of Customer-Choice Programs in SCE's Territory Have Revealed New Implementation Risks

Although CCAs are not new, they have morphed from a potential risk to an actual risk since the last Cost of Capital case, with mass CCA departures occurring in 2019.[147] CCAs are under consideration in every major city and/or county in California.[148] Likewise, while many states are experiencing rooftop solar growth, distributed energy resource ("DER") penetration levels in California are among the highest in the nation. This trend will not abate given the 2018 ruling by the State's energy commission requiring solar on almost all new homes built beginning

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[142] SDG&E, Folkmann, Tr. Vol. 5/827-29.
[143] Exhibit SCE-04 (Stern Rebuttal), p. 8; Exhibit EDF-06, *Edison International and Southern California Edison 2018 Annual Report and 10-K* (Excerpts), p. 37.
[144] Exhibit EDF-06, p. 37.
[145] Regulatory Research Associates, a group within S&P Global Market Intelligence, noted these legislative changes in its August 15, 2019 evaluation, which reflects its "assessment of the probable level and quality of the earnings to be realized by the state's utilities as a result of regulatory, legislative, and court actions." EPUC IS-11-C, *RRA Regulatory Focus – State Regulatory Evaluations* (August 15, 2019), p. 3. *See also* SDG&E, Folkmann, Tr. Vol. 5/854-55; *see also* Exhibit SCE-01 (Deana), p. 53.
[146] Exhibit SDG&E-23-C, *Moody's Report August 2, 2019*, pp. 6-7.
[147] Exhibit SCE-01 (Stern), pp. 21-22; Exhibit SCE-04 (Stern Rebuttal), pp. 5-7 and Appendix A.
[148] Exhibit SCE-04 (Stern Rebuttal), Appendix A, *California Customer Choice, An Evaluation of Regulatory Framework Options for an Evolving Electricity Market* (August 2018) (excerpts), A-3.

in 2020.[149] SCE has explained why self-generation, including net energy metering ("NEM"), creates risks related to cost-shifting[150] and operational issues.[151] Although these risks may be surmountable, they are risks utilities in other states do not face or face to a lesser degree, and they create exposure for shareholders.[152] Even Intervenors acknowledge the risks associated with CCA[153] and DERs.[154]

The major CCA departure and other technological developments that allow users to have more individual control over their energy supply have caused members of this Commission and credit agencies to sound the alarm. S&P Global referred to these events as nothing short of a "customer-driven revolution" that "will radically change the structure of the investor-owned utility industry."[155] This Commission has warned that "[w]ithout a coherent and comprehensive plan, the current policies in place may drift California to an unintended outcome and breakdown in services like the Energy Crisis."[156] SCE also has warned investors of the risks related to cost-shifting issues, explaining that "if SCE is no longer effectively able to recover such charges from its customers, SCE's business, financial condition and results of operations will be materially impacted."[157]

Although the Power Charge Indifference Adjustment ("PCIA") has done much to mitigate CCA risk, SCE still faces implementation risk.[158] Important implementation issues such as the mechanics of the annual benchmark true-up, the development of a framework for IOU portfolio optimization, and the development of a prepayment option, are pending resolution in Phase 2 of

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149 Exhibit SCE-01 (Stern), p. 24, n.34.
150 Exhibit SCE-01 (Stern), pp. 24-25.
151 Exhibit SCE-01 (Stern), pp. 12-14
152 SDG&E, Folkmann, Tr. Vol. 5/843, lines 7-23.
153 Exhibit EPUC-IS-TURN-01 (Gorman), p. IV-20.
154 Exhibit FEA-01 (O'Donnell), p. 93.
155 Exhibit SCE-04 (Stern Rebuttal), p. 6.
156 Exhibit SCE-04 (Stern Rebuttal), pp. 5-7 and Appendix A, *California Customer Choice, An Evaluation of Regulatory Framework Options for an Evolving Electricity Market* (August 2018) (Excerpts).
157 Exhibit EDF-06, p. 40.
158 *Id.*

the PCIA proceeding. SCE has raised the specter of failed CCA departures and involuntary customer returns that create cost exposure and operational risks for SCE.[159] Until cost-shifting issues are resolved in a manner that ensures bundled service customers are indifferent to departing load, risk of generation-related cost shifts to bundled customers remain. If bundled service customers are put at a systemic cost disadvantage to departing load, customer affordability, and the stability of the customer choice structure all are at some risk.[160]

c) Risks Related to SCE's Ambitious Electrification Efforts, Although Necessary, Require Compensation

SCE also has been actively engaged in the shift to greater electrification – promoting electric vehicle adoption and developing needed electric vehicle charging station infrastructure throughout its service territory.[161] Almost half the electric vehicles in the country are in California,[162] with nearly all of that growth occurring since the last Cost of Capital case.[163] There is no question that this transformation towards greater transportation electrification is needed to achieve important State policy goals. There also is no question that this transformation creates greater risks for California utilities than they faced historically or than other states face today, particularly in light of conflicting policies at the federal level.[164]

d) SCE's Large Distribution Capital Investment Program is Unique in Scale and Regulatory Lag Creates Disallowance Exposure

One hundred percent clean energy, the customer choice transformation, and electrification create the need for new capital investments, especially on SCE's distribution system. And

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[159] Exhibit SCE-01 (Stern), pp. 22-23.
[160] Exhibit SCE-04 (Stern Rebuttal), p. 7.
[161] Exhibit SCE-01 (Stern), p. 14.
[162] SCE, Stern, Tr. Vol. 2/167.
[163] SCE, Stern, Tr. Vol. 1/105.
[164] Exhibit SCE-01 (Stern), p. 15.

although increased expenditures for grid modernization and grid resiliency are not unique to SCE or California, the scale of investments is significantly greater.[165]

Given trends of increased GRC regulatory lag over time and as compared to other states,[166] disallowance exposure related to such increased capital investment on the distribution system is a real risk. Regulatory Research Associates ("RRA"), a group within S&P Global Market Intelligence, has acknowledged this unique California risk, explaining that there is no penalty or mechanism to enforce the statutory time limits for GRC decisions and noting that "[c]ertain recent GRCs have taken two years or more to complete."[167] SCE provided several examples of millions of dollars of distribution and grid modernization investment disallowances from its 2018 GRC that could have been mitigated by a timely GRC decision.[168]

2. Mitigating Factors Have Been Taken Into Account

Intervenors argue that balancing accounts and decoupling reduce SCE's risk and warrant a lower ROE. But this Commission previously has determined that mitigation from memorandum accounts at SCE's level already is taken into account.[169] In the 2013 Cost of Capital case, this Commission stated that "[c]learly, the impact of balancing and memorandum accounts is captured in the various financial modeling results. Any adjustment to the financial modeling results being adopted due to cost recovery mechanisms would be redundant or uncertain."[170] The benefits of revenue decoupling also are not new and are captured by the financial models.[171] Lowering SCE's ROE for these benefits would result in double-counting.[172]

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165 Exhibit SCE-01, p. 18, Figure III-4.
166 Exhibit SCE-01, pp. 34-36.
167 EPUC IS-11-C, p. 3.
168 Exhibit SCE-04 (Stern Rebuttal), pp. 16-17.
169 Exhibit SCE-04 (Stern Rebuttal), pp. 14-15.
170 D.12-12-034, p. 34.
171 Exhibit SCE-04 (Stern Rebuttal), pp. 15-16; D.12-12-034, p. 35 (w]hile the risk associated with revenue decoupling varies between utilities, the financial modeling results already reflect degrees of revenue decoupling risks.").
172 Morin, Tr. Vol. 2/238-39.

SCE acknowledges the many benefits that come from electrification and a clean energy transformation. But as Dr. Stern explains, SCE's position in front comes with risks.[173] SCE and its shareholders clearly support movement in this direction; it is the correct policy approach.[174] Nevertheless, shareholders need to be compensated for increased risks. EDF acknowledges that shareholder incentives should be aligned with the State's policy.[175] To discount SCE's shareholder returns because of their commitment to increased electrification and a clean energy transformation, despite the risks associated with these programs and the need to access capital to ensure their success, contravenes EDF's premise and sends the wrong signal to SCE's shareholders.

3. SCE's Credit Metrics Show that SCE's Business, Financial, and Regulatory Risk All Have Increased Since the Last Cost of Capital Case

One way to determine SCE's business, financial and regulatory risks is to look at SCE's credit metrics over time and compare them to other utilities nationally. SCE's business, financial and regulatory risks all have increased since SCE's 2013 Cost of Capital case, resulting in lower ratings. SCE's business risk profile measures worse than 74 percent of electric utilities sampled and worse than the non-utility benchmark and has deteriorated since 2012.[176] SCE's financial risk rating also has deteriorated relative to its peers;[177] SCE ranked third lowest out of 62 non-California electric utility companies for financial risk and had the worst financial rating compared to the non-utility benchmark in 2018.[178] Unsurprisingly, California IOUs, including SCE, have seen deteriorating regulatory risk ratings (which are now worse than most other states) due to the confluence of factors related to recent wildfires.[179] None of these ratings has been modified since

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[173] Stern, Tr. Vol. 1/118-24.
[174] Stern, Tr. Vol. 1/119.
[175] EDF-01, p. 32.
[176] Exhibit SCE-01 (Woodward), p. 73.
[177] Exhibit SCE-01 (Woodward), p. 77.
[178] Exhibit SCE-01 (Woodward), pp. 77.
[179] Exhibit SCE-01 (Woodward), pp. 80-85.

the passage of AB 1054.[180] In fact, RRA's rating of California's regulatory environment was downgraded after the passage of AB 1054.[181]

4. SCE's Current Authorized ROE of 10.30 Percent is No Longer Sufficient

Another rate of return factor to consider is SCE's current authorized ROE of 10.30 percent. This ROE, which was reduced from 10.45 as of 2018, allowed SCE to attract capital and continue to receive fairly favorable rating treatment from the rating agencies until the 2017/2018 wildfires and mudslides, which coincided with SB 100 and large-scale customer departures from SCE's service territory. Since then, the credit rating agencies have downgraded SCE's credit ratings to just above investment grade, leaving SCE very little cushion to withstand another adverse financial event. These downgrades are significant because maintaining creditworthiness, at least at investment grade levels, is an important component of *Hope* and *Bluefield*.[182] Although SCE's credit ratings stabilized, they were neither upgraded nor restored as a result of the passage of AB 1054 or any of the other recent regulatory or legislative features Intervenors claim lower SCE's risk.

SCE's credit ratings are below what they were in the 2013 Cost of Capital case,[183] when a 10.45 ROE was determined to be adequate. They also are below what they were in 2018, when a 10.30 ROE was determined to be reasonable.[184] They also are below the average for non-California utility peers.[185]

These facts lead to only one conclusion: the cost of equity for SCE has increased. Although SCE's previous ROEs were fair and reasonable when authorized, a higher ROE is needed for 2020. Without an increase, SCE's credit ratings are likely to remain at pre-downgrade levels and SCE will not be able to compete with its higher-rated utility peers.

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[180] Exhibit-01 (Woodward) p. 68.
[181] Exhibit EPUC IS- 11-C, p. 3.
[182] D.12-12-034, p. 37.
[183] Exhibit EPUC-IS-26.
[184] Exhibit EPUC-IS-26.
[185] Exhibit SCE-04 (Stern), p. 12, n.39.

D. Asymmetric Wildfire Risk Requires Adjusting Upward the Base ROE Range by 85 Basis Points

The single most significant change affecting SCE's cost of capital since the last Cost of Capital proceeding has been the devastating impact of wildfires in SCE's service territory and throughout California. The 2017/2018 wildfires and mudslides were bigger and more damaging than ever before in the state and far beyond what any other region of the country has experienced. They have resulted in multiple downgrades to SCE's credit rating and increased SCE's cost of capital. Because wildfire risk is asymmetric and not captured by the financial models, SCE requests that the base ROE range be adjusted upward by 85 basis points. The following reasons, discussed below, strongly support this upward adjustment:

- California's application of inverse condemnation with a strict liability standard to public utilities coupled with the uncertainty of cost recovery is unique and creates greater risks for investors.
- Credit rating agencies, upon which investors and this Commission have relied to assess risk, perceive California utilities to be a riskier investment because of wildfires.
- AB 1054 mitigates wildfire risk but does not eliminate it. Inverse condemnation continues to exist and uncertainty surrounds the implementation of AB 1054, particularly its new reasonableness standard for cost recovery.
- Because wildfire risk is asymmetric, it is not captured by standard cost of capital financial models and must be modeled separately. An implied insurance premium methodology supports a 85 basis point upward adjustment to the base financial model ROE to compensate investors for the unique risks that wildfires present. 85 basis points is comparable to the 70-80 basis point range calculated by other Intervenors in this proceeding.

1. Wildfire Risk is Unique to California

Several Intervenors acknowledge California's unique application of the legal doctrine of inverse condemnation to public utilities and imposition of a strict liability standard that requires

utilities to pay claims for property damage when their facilities are a substantial cause of a wildfire, regardless of fault.[186] The strict liability standard means utilities do not receive the benefit of the shifted burden of proof, which rests squarely on the plaintiff in a typical common law negligence case.[187] SCE and the other California utilities thus face tremendous liquidity exposure when their facilities are the cause of wildfires.

The significant cost recovery risk associated with the inverse condemnation doctrine came into sharp focus in 2017 when the Commission denied SDG&E cost recovery of its 2007 wildfire costs.[188] This Commission's decision came after FERC had concluded that SDG&E's conduct was prudent and awarded full recovery for unrecovered costs related to the same wildfire.[189] SDG&E's witness Mr. Folkmann testified that the Commission's decision was unexpected given FERC's order and prior precedent. Indeed, SDG&E's accounting treatment of these costs indicated SDG&E believed it was likely to recover them.[190]

The difference in outcomes was attributable in part to the disparate cost recovery standards FERC and the Commission applied. FERC applies a strong presumption that the utility acted prudently, "unless a challenging participant casts serious doubt on the prudence of that expense."[191] The FERC decision makes clear that this presumption is "not easily refuted" and that a mere rule violation is not enough.[192] FERC's standard "permits considerable latitude" and "does not look for a single correct result or require that every possible alternative be

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[186] FEA, O'Donnell, Tr. Vol. 3/359-60; EPUC-IS-TURN, Gorman, Tr. Vol. 3/393; EDF, McCann, Tr. Vol. 6/1031.

[187] *See, e.g.*, *Leslie G. v. Perry & Associates*, 43 Cal. App. 4th 472, 473 (1996) ("To prevail in a negligence action, the plaintiff must establish every essential element of her case by a preponderance of the evidence.").

[188] A.15-09-010, Decision (D.)17-11-033, *Decision Denying Application* (issued December 6, 2017); *reh'g denied,* D.18-07-025 *Order Denying Rehearing of D.17-11-033* (July 12, 2018) ("SDG&E WEMA Decision").

[189] *San Diego Gas & Electric Company,* 146 FERC P63, 017, ¶¶ 56, 61-62 (2014).

[190] SDG&E, Folkmann, Tr. Vol. 5/810.

[191] Docket No. ER12-2454-003, *Initial Decision and Order Granting SDG&E Motion for Summary Disposition, But Denying SDG&E Motion to Terminate,* ¶ 47 (February 24, 2014).

[192] *Id.,* ¶ 57 ("even if SDG&E had been found to have violated GO-95, such a violation standing alone would be insufficient to shift the presumption against SDG&E.").

evaluated."[193] In contrast, under the CPUC's prudent manager standard, the Commission placed the burden of proof squarely on SDG&E, as the party seeking cost recovery, to demonstrate prudent conduct. The Commissions defined as this standard as including "best practices of the era,"[194] and acknowledged that it imposed a "high burden of proof."[195]

Regardless of the precise contours of the FERC and CPUC cases, the upshot is: "the fundamental question of San Diego's prudence was evaluated in both cases. And different results were found. The standard at FERC did not result in a disallowance. The standard the CPUC applied did."[196] What investors came to understand is that California imposes a higher cost-recovery burden on its utilities.[197] A higher standard creates greater risk for investors. California's extreme wildfire risk and inverse condemnation, when combined with the Commission's heightened prudency and cost recovery standard, created a new and unacceptable level of risk for California utility investors.

2. Credit Rating Agencies Perceive California Utilities to be a Riskier Investment Due to Wildfires

The credit rating agencies downgraded the credit ratings of SCE and the other California utilities multiple times.[198] SCE's credit ratings came precipitously close to falling below investment grade levels.[199] The credit reports pointed to the SDG&E WEMA Decision[200] and

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193 *Id.,* ¶ 59 (internal citation omitted).
194 SDG&E WEMA Decision, p. 6.
195 SCE Reply to Protest, p. 6, n.20.
196 SCE, Stern, Tr. Vol. 1/96-97.
197 Exhibit SCE-01, pp. 33-34; SDG&E-23-C, *Moody's Report August 2, 2019,* p.5 ("The most important change is that the burden of proof has shifted from the utility to the intervenors, who are required to raise serious doubt as to the reasonableness of the utility's conduct. We understand that this revised prudency standard is in line with the recovery standards applied by FERC. This is an important change because, in the case of SDG&E's 2007 wildfires, while the CPUC denied recovery, the FERC ruled that SDG&E acted prudently and allowed the recovery of the wildfire costs.").
198 Exhibit SCE-01, p. 43, 49, 52.
199 Exhibit SCE-01 (Deana/Stern), p. 48, 64 and Appendix A.
200 Exhibit SCE-15, *2019-03-05 Rating Action – Moody's Downgrades Edison International to Baa3 and Southern California Edison to Baa2,* p. 1.

also noted the differing standards between FERC and the CPUC.[201] PG&E filed for bankruptcy as a result of the wildfire liabilities it was facing. Ultimately, this flawed regulatory environment required a legislative fix in the form of AB 1054.

The credit rating reports also noted the unique nature of wildfires to California utilities. Moody's noted that "California is in a unique situation because its wildfires are on average much more destructive because of its higher population density compared to other western states" and adding that resulting property damages have "an outsized effect on investor-owned utilities because of California courts' application of the inverse condemnation legal doctrine."[202] S&P Global analyzed California risks for natural disasters compared to Florida, which also has exposure to such risks, but concluded that there were two key distinguishing factors making California riskier: inverse condemnation and cost recovery.[203] S&P Global referred to Florida's cost recovery process as "predictable and reliable" and California's as "untested and uncertain."[204]

Notably, credit rating agencies have not found solace in the fact EDF focused on – namely, that the estimated number of properties per capita at risk is higher for Montana.[205] One would think that the Environmental Defense Fund would be more concerned with total acres burned (California: 1,823,153 vs. Montana: 97,814), rather than properties per capita at risk.[206] Nonetheless, what investors care about is cost, and the top ten costliest wildfires in history have occurred in California.[207]

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201 Exhibit SCE-17, *2019-07-18 Fitch Affirms Edison Int'l & SoCal Edisons IDRs at 'BBB-'*, p. 3.
202 Exhibit SCE-15, p. 1.
203 Exhibit SCE-16, p. 6.
204 *Id.* p. 6-7.
205 EDF, McCann, Tr. Vol. 6/1020-24.
206 Exhibit SCE-14, *Insurance Information Institute Facts and Statistics, Wildfires,* p. 6 (Table entitled Wildfires by State, 2018).
207 Exhibit SCE-14, pp. 8-9 (table shows the top 10 costliest wildland fires in the United States all have occurred in California). *See also id.*, pp. 5-6, 7-9 (California ranks number 1, by an extremely wide margin, in the estimated number of properties at high to extreme wildfire risk, California ranks number 1 in the number of acres burned in 2018).

Credit rating agencies perceive California wildfire risk to be much greater than it was in the past. Fitch notes: "The sharp increase in the magnitude and frequency of catastrophic wildfires in California in 2017 and 2018 underscores risk that this phenomenon may continue into the future and with it mounting liabilities and financial stress on IOUs in the state."[208] Moody's states: "wildfires have become a significant risk to SCE and other California utilities over the past few years." Noting that "seven out of the ten most damaging fires have occurred in the past five years," Moody's expresses concern that "the size of the wildfires has been growing larger and could continue to grow."[209]

3. AB 1054 Mitigates SCE's Wildfire Risk, But Does Not Eliminate It

SCE anticipates AB 1054 will reduce SCE's wildfire liability and cost recovery risks materially, but some residual risk for SCE's investors remains. SCE has reduced substantially its overall ROE request related to wildfire risk and has not attempted to quantify or include all risks related to AB 1054, instead opting to give AB 1054 a chance. However, although SCE's credit ratings have stabilized, credit rating agencies have not upgraded them and they continue to express concern regarding the continued existence and application of inverse condemnation in California to investor-owned utilities and uncertainty around the implementation of AB 1054.[210] Therefore, SCE is unable to conclude that AB 1054 has eliminated entirely its risk related to wildfires and wildfire cost recovery.

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[208] Exhibit SCE-17, p. 2.
[209] Exhibit SCE-15, p. 1.
[210] Exhibit SCE-04 (Stern Rebuttal), p. 12-13 (quoting Moody's post-AB 1054 concerns regarding implementation of wildfire legislation and Fitch's concerns regarding the failure of AB 1054 to address inverse condemnation); SDG&E-22-C ("Another longer-term risk deals with the uncertainty as to how the CPUC, which is responsible for implementing much of the new law, will interpret AB 1054. If the Commission does not implement AB 1054 in a credit supported manner, then much of the new law's credit supportive elements related to the revised standards of the utilities' reasonable conduct could potentially be negligible."); SDG&E-23-C (Moody's Report August 2, 2019), p. 5 ("The application of this revised prudency standard by the CPUC in a credit supportive manner would likely strengthen our view of the credit supportiveness of the regulatory environment in California. However, this is likely to take some time as it remains to be seen how challenging it will be for the intervenors to create serious doubt, an undefined term and subject to the CPUC's interpretation.").

SCE's experts Frank Graves and Robert Mudge ("Brattle") have explained that wildfire risk is an asymmetric risk – meaning it involves only downside potential for uncompensated losses – and explained in detail why wildfire risk is not reflected in traditional cost of capital modeling approaches.[211] Although Dr. Morin indicated some level of wildfire risk was taken into account in his base ROE analysis for SDG&E,[212] he included Sempra in his proxy group, which would cause some of SDG&E's wildfire risk to be reflected in the base ROE. SCE, in contrast, did not include EIX or any California utility in its base ROE proxy group. Dr. Villadsen explained that wildfire risk was not reflected in the base ROE she recommended for SCE.[213]

Therefore, to capture and quantify the asymmetric and unique risk that wildfires present in California, Brattle used an implied insurance premium methodology. Following the passage of AB 1054, at SCE's request, Brattle relied upon assumptions in an analysis that Filsinger Energy Partners, a consultant to Governor Newsom's office, performed and that Moody's referenced in its reports to model the residual risks to investors of wildfires. Brattle relied on Filsinger's assumption that 75 percent of wildfire costs will be disallowed in 2020 with the disallowance percentage "falling steadily" to 25 percent by 2030 to calculate the risks remaining for investors after AB 1054.[214]

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[211] Exhibit SCE-03 (Graves), Appendix B, pp. B-26 – B-27 ("when a utility stock faces an asymmetric risk such as the increasing exposure to wildfire liability in California, its stock price will fall (as happened to both PG&E and SCE). However, that stock will not be expected thereafter to appreciate more than similar utilities that do not have that problem, and so shareholders will not have the opportunity to cover the unexpected loss. Correspondingly, the market-required return estimated by applying quantitative models (such as the Capital Asset Pricing Model ("CAPM") and the Discounted Cash Flow ("DCF") model) to a proxy group of other utilities does not capture a premium for all asymmetric risk. So when that measured rate of return is allowed against the equity in rate base, shareholders are not compensated for such exposures."); *id.* B-61 ("Importantly, asymmetric risk cannot be ignored by regulators simply because it is not priced by traditional models, such as the CAPM or DCF models used to estimate the cost of capital. Under long-received and uncontroversial legal decisions and regulatory conventions, utilities must be entitled to a fair (*i.e.*, unbiased) opportunity to earn their cost of capital against their prudently invested capital."). *See also* PG&E, Vilbert, Tr. Vol. 4/578-79; IEI, Hern, Tr. Vol. 4/594.

[212] SDG&E, Morin Tr. Vol. 2/302.

[213] Exhibit SCE-02 (Villadsen), pp. 3, 9-10, 38, n.55, 59.

[214] Exhibit SCE-01-A, (Wood), p. 8; Exhibit SCE-03A, Appendix A: *Brattle Supplemental Report on Wildfire Risk and AB 1054,* p. 12, Exhibit SCE-06, p. 15.

Based on Brattle's analysis, SCE concluded that an upward adjustment of 85 basis points to the base financial ROE model range is needed to account for residual wildfire risk (taking into account the mitigating impacts of AB 1054).[215] The Commission previously has used factors to adjust upward the base ROE model range to account for risks not specifically captured in the financial models.[216] Here too, it is appropriate to adjust upward the base ROE model range by 85 basis points to account for the asymmetric risk that wildfires present in California.

Contrary to Intervenors' misconceptions, this implied insurance premium approach is not intended to serve as a form of self-insurance.[217] Nor is it an attempt to compensate investors for past or future wildfire costs.[218] Instead, it is a method to quantify the return that investors require to continue to invest with SCE following the passage of AB 1054 given the risks that the remain. For this reason, Cal Advocate's proposal to create a wildfire reserve using "excess profits" collected through previously-authorized ROEs[219] is inappropriate for a Cost of Capital proceeding and fundamentally misses the point.[220]

Another misconception several Intervenors have perpetuated is that SCE's request is a "backdoor method of collecting disallowances from ratepayers."[221] This is incorrect. AB 1054's changes to the review standard for cost recovery, in particular, the shifting of the burden of proof, are intended to create a standard akin to the standard FERC applies in reviewing cost recovery applications. AB 1054's new reasonableness standard of review replaces the Commission's prior "prudent manager" standard, which this Commission has acknowledged is very high.[222] However, there is no track record to determine how this new standard will be applied in practice. In fact,

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[215] In its Application and initial testimony submitted on April 22, 2019 prior to AB 1054, SCE had requested an upward adjustment of 600 basis points. *See* Exhibit SCE-01, p. 47 and SCE-03 (Graves), p. 3.
[216] D.05-12-043, pp. 23-24.
[217] *See* Exhibit FEA-01 (O'Donnell), p. 29.
[218] *See* Exhibit EDF-02 (McCann Rebuttal), p. 3.
[219] Exhibit Cal Advocates-01(Rothschild), p. 100. *See also* Exhibit EPUC-IS-TURN-01, p. V-6 (suggesting cash associated with an increased ROE should be sequestered in a wildfire fund).
[220] Exhibit SCE-06 (Graves/Mudge Rebuttal), pp. 5-7.
[221] Exhibit EDF-02 (McCann Rebuttal), p. 1.
[222] *See* SCE Reply to Protests, p. 6.

the only precedent – SDG&E's WEMA Decision – suggests that the Commission may be willing to impose a higher standard on California utilities than other jurisdictions.

Until there is a track record, investors remain concerned that under inverse condemnation, California utilities face a significant threat of being held responsible for substantial costs, particularly in light of the increased frequency and severity of California wildfires. Investors express concerns that the utilities will not be able to recover those costs because AB 1054's new wildfire cost recovery standard still will be higher than the standard at FERC or in other states. That differential would create more exposure for California utilities and higher costs for shareholders; investors must be compensated for this uncertainty or they will select a less-risky alternative.[223]

There are several risks associated with AB 1054 that SCE has not quantified as part of its 85 basis point estimate of wildfire risk, indicating that this number is conservative.[224] In particular, the 85 basis points does not include the risk of fund depletion.[225] Were SCE to have used a disallowance level lower than the 75 percent relied upon by Moody's, the fund depletion risk would increase.[226] Although Mr. O'Donnell believes the fund would be reconstituted upon depletion, he bases his conclusion on "common sense" and "hope," rather than statute.[227]

4. Joint Intervenors' and FEA's Quantification of Wildfire Risk is Close to SCE's

The Joint Intervenors and FEA acknowledge that even after the passage of AB 1054, wildfire risks continue to affect the IOUs' returns on equity.[228] At hearings, FEA witness Mr.

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223 Exhibit SDG&E-11 (Folkmann Rebuttal), p. BAF-3; SDG&E, Reed, Tr. Vol. 4/718-19, 724-25.
224 Exhibit SCE-03-A (Graves/Mudge Supplemental), p. 3.
225 SCE, Wood, Tr. Vol. 1/82.
226 SCE, Wood, Tr. Vol. 1/82; SCE, Graves/Mudge, Tr. Vol. 3/496.
227 FEA, O'Donnell, Tr. Vol. 3/373.
228 Exhibit EPUC-IS-TURN-01 (Gorman), pp. V-10 to 11, VII-1 and EPUC IS TURN, Gorman, Tr. Vol. 3/399 (acknowledging that AB 1054 did not fully mitigate wildfire risk); Exhibit FEA-01 (O'Donnell), p. 41.

O'Donnell was unambiguous in his view that inverse condemnation is a unique California risk warranting an ROE premium, stating "I do believe that California utilities are at a higher risk and deserve a higher return."[229] These Intervenors provide alternative approaches to SCE's implied insurance premium methodology approach to quantify that risk.[230] Their results, capped at 70 basis points for the Joint Intervenors[231] and a 70 to 80 basis point range for FEA,[232] are very close to SCE's 85 basis point estimate. Notably, the 70 basis points Joint Intervenors calculate is based on debt yields, and they acknowledge that equity is more expensive than debt.[233] Although FEA has based its premium on the continued application of inverse condemnation to utilities in California, SCE has explained why this risk and implementation risk are intertwined.[234]

5. The Denial-of-the-Obvious Stance Assumed by EDF and Cal Advocates Should be Ignored

EDF and Cal Advocates take untenable positions regarding wildfire risks. EDF argues SCE has failed to show that wildfires are either a new or a unique risk to California.[235] In fact, the record includes ample evidence of California's unique laws around application of inverse condemnation to investor-owned utilities,[236] uncertainty around cost recovery implementation, and higher costs due to relatively high population and density of human structures compared to

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229 FEA, O'Donnell, Tr. Vol, 3/364, lines 7-9. *See also* FEA-01 (O'Donnell), p. 41 (stating that inverse condemnation makes "an investment in a California utility more risky as a whole than an investment in a utility that operates in a state without such liability risk.").

230 Exhibit EPUC-IS-TURN-01 (Gorman), p. VII-1.

231 Exhibit EPUC-IS-TURN-02 (Gorman Rebuttal), p. 10.

232 Exhibit FEA-01 (O'Donnell), p. 54 ("The issue of inverse condemnation is still outstanding to the California utilities, which is the primary reason I believe there is a 70-80 basis-point difference in the dividend yields of the comparable group and Edison.").

233 Exhibit EPUC-IS-TURN-01 (Gorman), p. VII-9. Mr. Gorman states, "utility common equity capital is more than twice (11.4% vs. 4.5%) as expensive as common equity capital." As Brattle noted, the second reference to "common equity capital" likely is meant to refer debt given that it is a basic premise of financial economics that equity is more expensive than debt. *See* Exhibit SCE-06 (Graves/Mudge Rebuttal), p. 18.

234 Exhibit SCE-07 (Stern Sur-rebuttal), pp. 1-2.

235 Exhibit EDF-01 (McCann), pp. 24-25.

236 SDG&E-03, Widjaja, p. DW-9; FEA, O'Donnell, Tr. Vol. 3/359-60; EPUC-IS-TURN, Gorman, Tr. Vol. 3/393; EDF, McCann, Tr. Vol. 6/1031.

the rest of the West, all of which expose the utility to increased wildfire risk.[237] Brattle shows that the trend is clearly towards increasing wildfire costs and damage, with the most costly fires occurring in the 2017 – 2018 time period.[238] The two most serious wildfires in recent history, by a wide margin, have occurred since the last adjustment to SCE's ROE in 2017. And the top five costliest wildfires in the United States all have occurred in California in the last two years.[239] In addition, credit rating downgrades of California utilities – with commentary specifically addressing increased wildfire and cost recovery risks – show that investors perceive wildfires in California as a significant risk.[240]

Cal Advocates also must ignore reams of evidence of the negative impact of wildfires on the IOUs' credit ratings to reach its conclusion that wildfire risk does not impact the cost of equity of regulated utilities.[241] And Cal Advocates ignores this evidence selectively and only when it suits their interest. In a separate proceeding on funding the customer portion of the Wildfire Fund, Cal Advocates notes that even after the passage of AB 1054, credit rating agencies may still downgrade the utilities in the next 18 months and that "for SCE, S&P specifically warned that an upgrade within the next year is 'unlikely.'"[242] Accordingly, the CPUC should dismiss these selective denial-of-the-obvious positions.

IV.
CAPITAL STRUCTURE

SCE requests increasing its common equity percentage from 48 percent to 52 percent, while reducing preferred equity from 9 percent to 5 percent and leaving its debt level unchanged at 43 percent.[243] SCE's proposal to reduce preferred equity is not controversial. SCE's proposal is the only one that achieves this reduction while also reducing its leverage at a time when credit

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[237] Exhibit SCE-03 (Graves), Appendix B, pp. B-13 – B-14; Exhibit SCE-14, pp. 5-6, 7-9.
[238] Exhibit SCE-03 (Graves), Appendix B, Figure 3, p. B-15.
[239] Exhibit SCE-14, pp. 8-9.
[240] Exhibit SCE-04 (Stern Rebuttal), pp.12-13; *see also* Exhibits SCE-15, SCE-16, and SCE-17.
[241] Exhibit Cal Advocates-01 (Rothschild), p. 49.
[242] Exhibit SDG&E-27.
[243] Exhibit SCE-01 (Deana), p. 48.

supportive action is needed. Moreover, while SCE proposes increasing its common equity level, it remains on par with utilities nationally and in California. SCE's currently authorized levels, recommended capital structure and Intervenors' recommendations are summarized in Figure IV-3 below.

Figure IV-3

SCE and Intervenor Capital Structure Proposals

	Common Equity	Preferred Equity	Debt
Currently Authorized	48	9	43
SCE Recommendation	52	5	43
FEA Recommendation	52	0	48
Joint Intervenor Recommendation	50	5	45
Cal Advocates Recommendation	48	5	47
EDF Recommendation	None	None	None

A. Record Evidence Shows SCE's Current Preferred Equity Level Should Be Reduced

The record evidence clearly shows that SCE's 9 percent level of preferred equity makes it an extreme outlier. It is substantially higher than the 1.0 to 2.75 percent levels currently authorized for the other California electric utilities.[244] In addition, most other U.S. utilities in the national utility sample group have preferred equity ratios of less than 1%.[245] The Joint Intervenors agree SCE's preferred equity is "unusually high."[246] SCE's preferred equity is currently trading below investment grade. The preferred equity market accessible to SCE thus is relatively small.[247] No party contests a reduced authorized preferred equity level for SCE.

[244] Exhibit SCE-01 (Deana), p. 61, Exhibit SCE-01 (Woodward), p. 87-88.
[245] Exhibit SCE-01 (Deana), pp. 60-61; Exhibit SCE-01 (Woodward), p. 89
[246] EPUC-IS-TURN, Gorman, Tr. Vol. 3/448.
[247] Exhibit SCE-01 (Woodward), p. 86.

B. SCE's Debt Leverage Must be Reduced

SCE's credit ratings have been downgraded significantly as a result of the 2017/2018 wildfire events. Its credit rating hovers just at investment grade.[248] Credit metrics for business, financial and regulatory risk have all been reduced.[249] Even *Value Line* data shows that SCE is riskier than its peers and no longer ranked as a safe investment.[250] SCE has explained how such a low ratings and weak credit metrics create additional costs for customers.[251] A sufficient cushion is needed to withstand a market downturn, increased PPA obligations, or issuances of more debt.[252] Although the outlook for SCE's credit ratings has stabilized after the passage of AB 1054, credit ratings have not improved. In fact, after the passage of AB 1054, Regulatory Research Associates downgraded its rating for California's regulatory environment.[253] Authorizing SCE's proposed 52 percent equity ratio is a needed supportive step to restore SCE's credit ratings to levels more typical of U.S. utilities.

Another reason to avoid increasing SCE's debt level is imputed debt equivalence. SCE has explained that in 2005, it increased its preferred equity to mitigate the impact of debt equivalence related to its ongoing PPA obligations.[254] To continue to address its unabated debt equivalence risk,[255] SCE must reduce its preferred equity in a way that reduces, not increases, its overall debt levels.

Authorizing this change will also send a signal to equity and debt investors that the State supports SCE's financial health. A financially sound electric utility will be able to access the credit markets to support the State's policy objectives.

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[248] Exhibit EPUC-IS-TURN-01 (Gorman), p. IV-1.
[249] Exhibit SCE-01 (Woodward), p. 68.
[250] *See* Section III.B.5, above.
[251] Exhibit SCE-01 (Deana), pp. 55-57; Exhibit SCE-01 (Woodward), p. 95.
[252] Exhibit SCE-01 (Deana), pp. 64-65.
[253] Exhibit SCE-07 (Villadsen Rebuttal), p. 3; EPUC IS-11-C, p. 3
[254] Exhibit SCE-01 (Deana), p. 60.
[255] Exhibit SCE-01 (Deana), pp. 57-59.

C. SCE's Recommended Capital Structure is the Only Proposal that Will Reduce SCE's Leverage

SCE's proposed capital structure changes have the impact of reducing SCE's preferred equity while making SCE less levered, by increasing its common equity percentage. Intervenors do not oppose a reduction in SCE's preferred equity levels for the reasons stated above. Intervenors' alternative proposals, however, fail to reduce SCE's overall leverage at a time when SCE's credit metrics require such credit supportive action.

Cal Advocates does not oppose reducing SCE's preferred equity by 4 percent. However, Cal Advocates opposes increasing SCE's common equity percentage on grounds that EIX, maintains a lower common equity level than SCE's current level.[256] SCE explains, in Section IV.D below, why EIX's common equity level should not factor in to this determination. But by reducing SCE's preferred equity without increasing SCE's common equity, SCE's debt would be increased from 43 percent to 47 percent.

The Joint Intervenors, like Cal Advocates, do not oppose SCE's request to reduce its preferred equity to 5 percent. However, the Joint Intervenors believe SCE's common equity should be increased by only 2 percent to 50 percent. The Joint Intervenors' main rationale for 50 percent common equity, as opposed to the 52 percent that SCE has requested, is that debt is less expensive than equity, especially in this low-cost interest rate environment.[257] But the Joint Intervenors' alternative proposal results in an increase of SCE's debt by 2 percent, to 45 percent.

Moreover, the Joint Intervenors' own evidence supports the reasonableness of SCE's request to increase its common equity to 52 percent.[258] It shows that since 2016, average utility equity ratios have been increasing year-over-year. In 2019, the average was 51.75 percent.[259]

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[256] Exhibit Cal Advocates-01 (Rothschild), pp. 36-37.
[257] Exhibit EPUC-IS-TURN-01 (Gorman), p. VII-9.
[258] Exhibit EPUC-IS-TURN-01 (Gorman), p. VII-12, Table 24.
[259] Exhibit EPUC-IS-TURN-01 (Gorman), p. VII-12, Table 24; EPUC-IS-TURN, Gorman, Tr. Vol. 3/450-51.

The Joint Intervenors also acknowledge that SCE's 52 percent request would bring it to the same level as the other California utilities.[260] And while the Joint Intervenors insist that SCE should take advantage of this low-cost debt environment, they have not proposed reducing the common equity levels of the other California utilities so that they can do the same. Given that SCE's requested common equity percentage is consistent with other utilities nationally and in California, SCE's request to increase its common equity to 52 percent should be adopted.

FEA adopts SCE's request to increase its common equity to 52 percent but proposes to eliminate SCE's preferred equity altogether.[261] By reducing SCE's preferred equity from 9 percent to zero while increasing SCE's common equity by only 4 percent, FEA's recommendation increases SCE's debt leverage by 5 percent. SCE explains in Section IV.B why it should not increase its leverage at this time. In addition, as Mr. Deana has explained, "the redemption or buy back of all 9 percent, over $2 billion, of its preferred equity in 2020 hampers SCE's ability to seek cost efficient opportunities for reducing its preferred equity holdings."[262] The Commission should adopt SCE's more measured approach to replacing preferred equity with common equity, which would reduce its debt leverage but not eliminate SCE's preferred equity entirely within this Cost of Capital period.

D. EIX's Capital Structure is Irrelevant

Cal Advocates argues that because EIX's common equity ratio is substantially lower than SCE's, SCE's equity ratio should remain at the current 48 percent level.[263] The holding company decision establishing EIX as SCE's parent company and the related decision revising the affiliate transaction rules establish holding company conditions and ring-fencing provisions that insulate SCE. These decisions make clear that EIX's capital structure is irrelevant to the question of the

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[260] EPUC-IS-TURN, Gorman, Tr. Vol. 3/449.
[261] Exhibit FEA-01 (O'Donnell), p. 47.
[262] Exhibit SCE-04 (Deana Rebuttal), p. 22.
[263] Exhibit Cal Advocates-01 (Rothschild), pp. 36-37.

appropriate regulatory capital structure for SCE, which should be regarded as a standalone utility for ratemaking purposes.[264] FERC precedent is consistent, generally viewing a parent company's capital structure as irrelevant, except in circumstances not applicable here.[265]

V.
EMBEDDED COST OF DEBT AND PREFERRED EQUITY

No party contests SCE's recommendations regarding its 2020 cost of long-term debt and preferred equity. In fact, all parties were able to stipulate to these amounts.[266] Because no party to this proceeding has contested these issues, the CPUC should adopt them as set forth at Figure I-1 above.

VI.
COST OF CAPITAL ADJUSTMENT MECHANISM

In its Application, SCE proposed that the Cost of Capital Adjustment Mechanism ("CCM"), established in D.08-05-035 and continued in D.13-03-015, be retained for its original base ROE request but that it not apply to the wildfire ROE SCE was seeking because wildfire cost recovery risk is not tied to capital market conditions or macroeconomic changes. SCE proposed

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[264] Exhibit SCE-04 (Deana Rebuttal), pp. 20-21; *Southern Calif. Edison Co.*, D.88-01-063, 22 CPUC 2d 347, 356 (1988) ("Edison Holding Company Decision"); D.06-12-029, Affiliate Transaction Rule IX-C.

[265] *Midcontinent Indep. Sys. Operator, Inc.*, 154 FERC ¶ 61004 (Jan. 6, 2016); *ITC Holdings Corp.*, 143 FERC ¶ 61257, 62879 (June 20, 2013) (opting to use the actual capital structure of the utility where "(1) issues its own debt without guarantees; (2) has its own bond rating; and (3) has a capital structure within the range of capital structures approved by the Commission."); Order on Rehearing, *Williams Natural Gas Company,* 80 FERC P61158, (August 1, 1997), pp. 5-7 (holding that it was not required to impute to natural gas pipeline company the capital structure of its corporate parent, in setting rate for company, despite claim that failure to impute that structure would result in "double leveraging," as company issued its own non-guaranteed debt and had its own bond rating"); *Missouri Public Service Com'n v. F.E.R.C.,* 215 F.3d 1 (2000) reversed and remanded on other grounds ("we have no basis to disturb FERC's refusal to apply the double leveraging theory.").

[266] A.19-04-014, *Joint Filing To Report Results Of Meet-And-Confer To Identify Stipulated Facts,* p. 3 (August 29, 2019).

that the wildfire ROE be subject to change upon SCE filing a new application if "SCE's wildfire cost recovery and liquidity risk materially change due to legislative or regulatory actions."[267]

In the Scoping Memo, President Picker explained: "The Commission will not consider a separate wildfire adder in the scope of this proceeding. Risk of all kind are addressed in this proceeding; thus a separate adder is not appropriate for one risk."[268] Based on the Commission's direction for an overall ROE and the effect of AB 1054 on SCE's ROE request, SCE has determined this separate adjustment mechanism is no longer necessary.[269]

No party has contested SCE's proposal to continue the CCM. Accordingly, SCE's overall ROE request should be subject to the CCM.

VII.
REQUEST FOR ORAL ARGUMENT

SCE hereby requests the opportunity for oral argument in this proceeding.

VIII.
CONCLUSION

For all of the foregoing reasons, as well as the reasons set forth in SCE's testimony in this proceeding, the Commission should grant SCE's 2020 test year Cost of Capital recommendation, as set forth and justified in this Opening Brief.

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[267] Exhibit SCE-01 (Rumble), p. 67.
[268] A.19-04-014, *Scoping Memo and Ruling of President Picker,* p. 3 (July 2, 2019).
[269] Exhibit SCE-01-A (Rumble Supplemental), pp. 10-11.

Respectfully submitted,

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